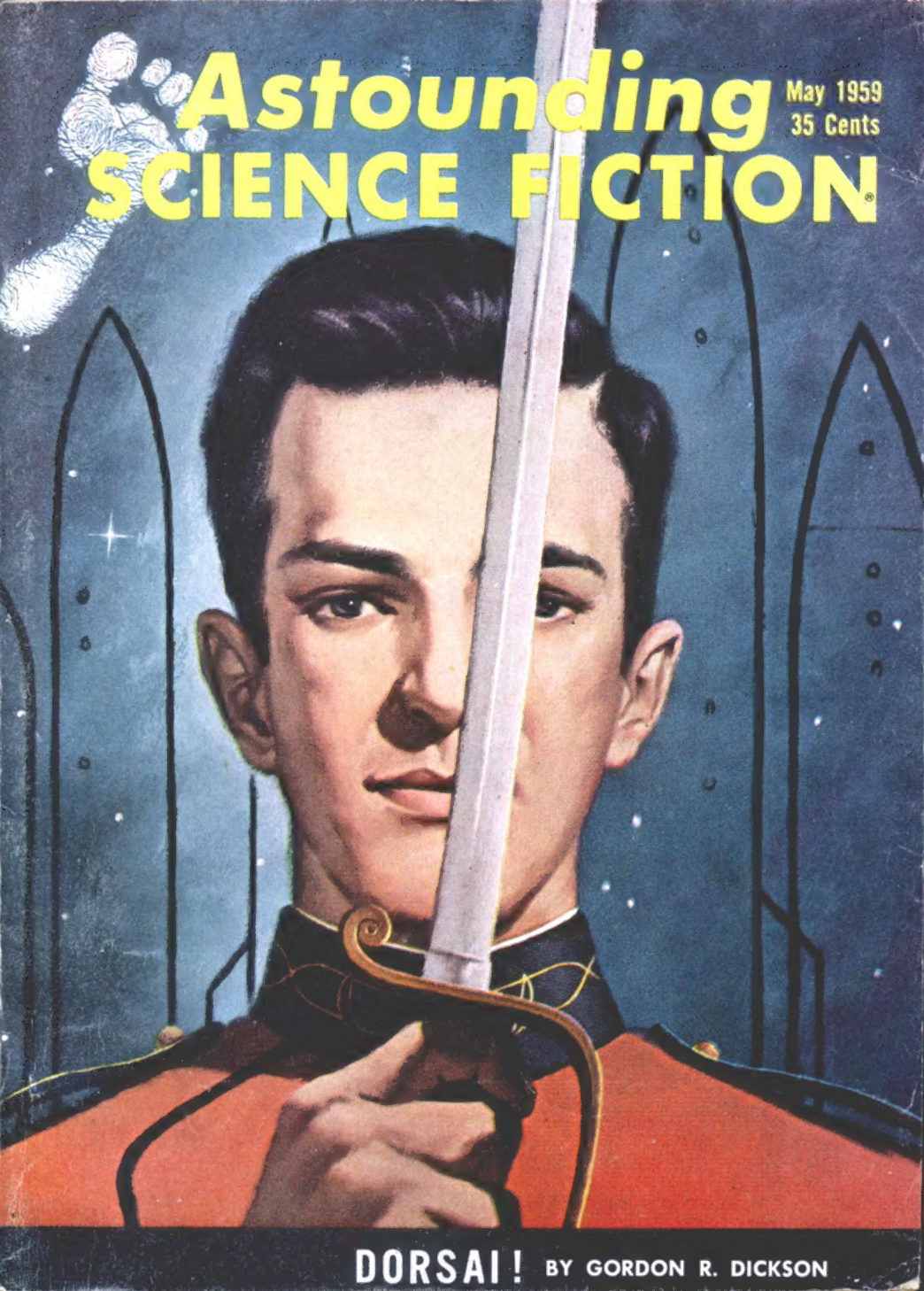
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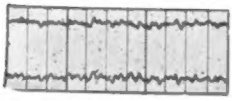
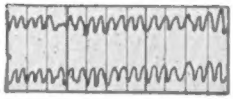


Brain in concentrated thought: Waves are short, irregular and frequent.



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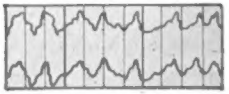

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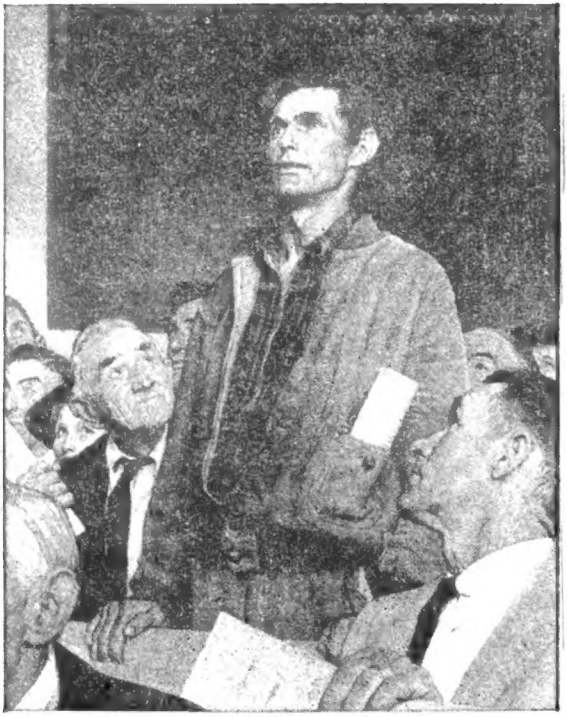

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MR. NEWTON'S WONDERFUL DISCOVERY

IT'S fairly simple to say that "Newton discovered the Law of Gravity," or even that "Newton discovered gravity." The latter statement isn't true; the first life-form that tried struggling out of water onto land was the one that discovered gravity. It must have been a weird and terrible sensation for that first creature to brave its perils.

And certainly Newton was not the first of men to discover that things fall. Ugh, the caveman, applied that principle some million years earlier, dropping rocks on his soon-to-be-dinner. Newton wasn't the first to study the problem in a scientific sense, either. Galileo was dropping weights, and studying pendulums before young Isaac Newton started eating apples, let alone getting beaned by them.

Archimedes certainly had a sound understanding of the fact of gravity; in his original proof of "Archimedes principle," he discussed *spherical* water, and considered weight as a force acting *toward the center of the sphere.* (Archimedes, like all well-educated men of his time, was well aware that the Earth is a spheroid. If his proof had not considered spherical water masses, it would not have been complete, nor satisfying to a man of Archimedes character.)

Galileo worked out the exact characteristics of gravity; he measured the factors of weight, and recognized that gravity produces an acceleration, and measured the magnitude of that acceleration.

Was Newton's discovery, then, the concept of *universal* gravitation?

No . . . that doesn't express it properly, either. The Greeks showed an acceptance of the universality of gravity in a number of ways; they didn't state it specifically as a law, of course, but their mythology and general thinking shows that it was ac-

cepted as an axiom that gravity was universal. Thus, Apollo's chariot had to *carry* the Sun, and Atlas had to *hold up* the sky.

Ptolemy's cosmology had the planets *carried* on tracks of a complicated nature.

When Copernicus and Kepler went to work, the problem became somewhat difficult . . . but exactly what thoughts they had about gravity I don't know.

The fact seems to be that Newton's wonderful discovery was that gravity was *not a universal constant,* but a *universal variable.*

Theretofore, scientists or philosophers had considered it as either a continuous constant, or as a discontinuous constant; Newton showed it was a continuous variable.

In some of the very earliest science fiction, written a century or more before Newton's time, there were tales of visits to the Moon, and other planets. In each case, the visitor finds gravity acting normally on the world he visits; that is, toward the center of the world he's on.

This has as a hidden assumption that gravity-on-Earth ends somewhere, still having, up to that edge, a value identical with the known-on-Earth-surface gravity. The visited world also appears to be considered as having exactly the same kind of gravity, which, somewhere between here and there, ceases to be.

That is, gravity is universal, but a discontinuous constant. Wherever it *is,* it is the same; where it isn't the same, it *is-not.*

Newton's great break-through was the recognition that gravity is *variable.* It's "obvious" to us that Mars has gravity, but different in value from Earth's. Sure—that's obvious! Obvious, that is, after Newton succeeded in rearranging his thinking enough to find the law of variability.

Now take note of this item: Einstein's great discovery has to do with the proposition that the fundamental laws of physics are universal . . . but universal *variables.* Mass is no longer a constant; it has a law of variability. The effect of acceleration is no longer constant, as it is under Newtonian laws, but follows a law of variation.

Newton, in order to handle the problems his new conception of gravity raised, had to invent a new way of thinking about them—he called the system "fluxions"; we call it calculus. The essence of it is a mathematical discussion of something that varies continuously—an infinite progression of infinitesimal changes.

Einstein, too, believed deeply, to the end of his life, that problems of physics could be resolved by some system of infinite-succession-of-infinitesimal changes. He did not like the fundamental concepts of quantum mechanics; he wanted a general field theory. He objected to the idea of "God playing dice with the Universe."

The modern basis of statistical mechanics is probability—and probability always has meant "if there is a law behind this, darned if I know

what it is. I'm just guessing." It works with perfect dependability; sure. So do life-insurance tables—but that doesn't mean that the actuary who makes up and works with the tables knows what the men he tabulates will die of. He doesn't know the forces that make men die; he only knows that they die, if a large enough number be considered, with statistically predictable regularity.

A lot of modern cosmology and nuclear physics alike depends on non-Euclidean geometry. The development of the new geometries started by *varying* the basic axioms of Euclidean geometry.

At any given time in human history, there is a set of axioms, beliefs, "known laws of nature," which are held to be "laws of nature" because they are invariants. If they varied, they wouldn't be considered "laws of nature"; it's their rigorous and dependable invariance that makes men call them "laws of nature."

Galileo was exploring a law of nature when he investigated falling bodies.

But . . . Newton proved that what Galileo investigated was, in fact, a variable function! Any modern geophysicist knows, for instance, that the period of oscillation of a pendulum is *not* determined solely by its effective length; they measure variations in the local acceleration of gravity by using pendulums of very exactly known length, and observing the difference in period at different points on the Earth's surface. And it's "obvious" that a pendulum on the Moon or Mars would oscillate at an entirely different rate.

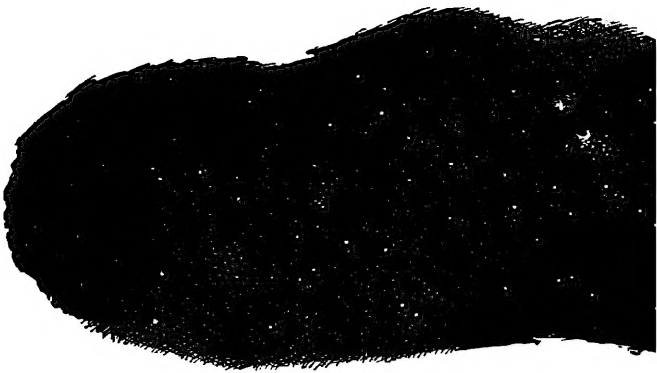
Also, bodies do *not* fall with uniform acceleration. Heavy bodies *do* fall faster than light ones! Aerodynamics gets into the act, of course, but leaving that aside, consider two planetoids in intergalactic space, undisturbed by appreciable external forces. We'll have one pair of planetoids made of solid ice, and another pair made of solid osmium, some twenty-two times as dense. Say each pair of bodies is ten miles apart, and each planetoid is one mile in diameter. Which pair will come into contact first? Are you sure the time will be the same for both pairs?

The laws of Logic are not Logical —they're intuitive, and can never be proven by logic. Bertrand Russell's Theory of Types, which was necessary to resolve the Class of All Classes paradox, shows that thinking *must* be heirarchic in organization; a Class of Classes is not of the same order as one of its own constituent classes.

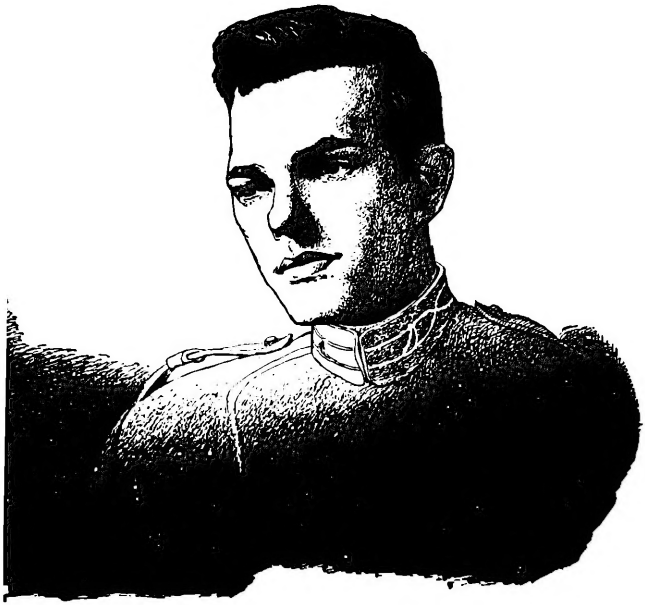
The known physical universe is arranged in heirarchies, each with its own, different, set of laws. The laws are analogous, true—but not the same. The laws of nucleonics, which we are now exploring, do *not* follow from the laws of mechanics. The laws of chemistry derive from the laws of orbital electrons in atoms; the laws of molecular forces derive from the laws of valence forces. The laws of crystals and gels, in turn, derive from those.

(*Continued on page* 160)

DORSAI!



BY GORDON R. DICKSON



Part I of III. *Donal had a problem—he was a highly efficient military cadet all right, of a highly military planet. But still . . . he was, somehow, different. But that difference proved to be not just his problem. . . .*

Illustrated by van Dongen

CADET

THE boy was odd.

This much he knew for himself. This much he had heard his seniors —his mother, his father, his uncles, the officers at the Academy —mention to each other, nodding their heads confidentially, not once but many times during his short eighteen years of life, leading up to this day. Now, apart, wandering the empty rec fields in the long, amber twilight before returning to his home and the graduation supper awaiting him there, he admitted to the oddness—whether truly in himself, or only in what others thought of him.

"An odd boy," he had overheard the Commandant at the Academy saying once to the Mathematics Officer, "you never know which way he'll jump."

Back at home right now, the family would be waiting his return—unsure of which way he would jump. They would be half expecting him to refuse his Outgoing. Why? He had never given them any cause to doubt. He was Dorsai of the Dorsai, his mother a Kenwick, his father a Graeme, names so very old their origin was buried in the prehistory of the Mother Planet. His courage was unquestioned, his word unblemished. He had headed his class. His very blood and bones were the heritage of a long line of great professional soldiers. No blot of dishonor had ever marred that roll of warriors, no home had ever been burnt, its inhabitants scattered and hiding their family shame under new names, because of some failure on the part of one of the family's sons. And yet, they doubted.

He came to the fence that marked off the high hurdles from the jump pits, and leaned on it with both elbows, the tunic of a Senior Cadet pulled tight across his shoulders. In what way was he odd, he wondered into the wide glow of the sunset? How was he different?

He put himself apart from him in his mind's eye, and considered himself. A slim young man of eighteen years—tall, but not tall by Dorsai standards, strong, but not strong by Dorsai standards. His face was the face of his father, sharp and angular, straight-nosed; but without his father's massiveness of bone. His coloring was the dark coloring of the Dorsai, hair straight and black and a little coarse. Only his eyes—those indeterminate eyes that were no definite color but went from gray to green to blue with his shifting moods—were not to be found elsewhere on his family trees. But surely eyes alone could not account for a reputation of oddness?

There was, of course, his temper. He had inherited, in full measure, those cold, sudden utterly murderous Dorsai rages which had made his people such that no sane man cared to cross one of them without good reason. But that was a common trait; and if the Dorsai thought of Donal Graeme as odd, it could not be for that alone.

Was it, he wondered now, gazing

into the sunset, that even in his rages he was a little too calculating—a little too controlled and remote? And as he thought that thought, all his strangeness, all his oddness came on him with a rush, together with that weird sense of disembodiment that had afflicted him, now and again, ever since his birth.

It came always at moments like this, riding the shoulders of fatigue and some great emotion. He remembered it as a very young boy in the Academy chapel at evening service, half-faint with hunger after the long day of hard military exercises and harder lesson. The sunset, as now, came slanting in through the high windows on the bare, highly polished walls and the solidographs of famous battles inset in them. He stood among the rows of his classmates between the hard, low benches, the ranked male voices, from the youngest cadet to the deep man-voices of the officers in the rear, riding the deep, solemn notes of the Recessional—that which was known as the Dorsai Hymn now, wherever man had gone, and which a man named Kipling had written the words of, eight centuries before.

. . . Far called, our navies melt away,
On dune and headland sinks the fire.
Lo! All our pomp of yesterday,
Is one with Nineveh, and Tyre . . .

As he had remembered it being sung at the burial service when his youngest uncle's ashes had been brought back from the slagged battlefield of Donneswort, on Freiland, third planet circling the star of Arcturus.

. . . For heathen heart that puts her trust
In reeking tube and iron shard,
All valiant dust, that builds on dust,
And guarding, calls not thee to guard . . .

And he had sung with the rest, feeling then, as now, the final words in the innermost recesses of his heart.

. . . For frantic boast and foolish word—
Thy Mercy on Thy People, Lord!

A chill shiver ran down his back. The enchantment was complete. Far and wide about him the red and dying light flooded the level land. In the farther sky the black dot of a hawk circled. But here by the fence and the high hurdles, he stood removed and detached, enclosed by some clear, transparent wall that set him apart from all the universe, alone, untouchable and enraptured. The inhabited worlds and their suns sank and dwindled in his mind's eye; and he felt the siren, deadly pull of that ocean of some great, hidden purpose that promised him at once fulfillment and a final dissolution. He stood on its brink and its waves lapped at his feet; and, as always, he strove to lift his foot and step forward into its depths and be lost forever, but some small part of him cried out against the self-destruction and held him back.

Then suddenly—as suddenly as it had come—the spell was broken. He turned toward home.

As he came to the front entrance, he found his father waiting for him,

in the half-shadow leaning with his wide shoulders spread above the slim metal shaft of his cane.

"Be welcome to this house," said his father and straightened up. "You'd beter get out of that uniform and into some man's clothes. Dinner will be ready in half an hour."

MAN

The men of the household of Eachan Khan Graeme sat around the long, shimmering slab of the dining board in the long and shadowy room, at their drinking after the women and children had retired. They were not all present, nor—short of a minor miracle—was it ever likely that they would be, in this life. Of sixteen adult males, nine were off at the wars among the stars, one was undergoing reconstructive surgery at the hospital in Foralie, and the eldest, Donal's grand-uncle, Kamal, was quietly dying in his own room at the back of the household with an oxygen tube up his nose and the faint scent of the bay lilac to remind him of his Maran wife, now forty years dead. Sitting at the table were five—of which, since three o'clock this afternoon—Donal was one.

Those others who were present to welcome him to his adulthood were Eachan, his father; Mor, his elder brother, who was home on leave from the Friendlies; and his twin uncles Ian and Kensie, who had been next in age above that James who had died at Donneswort. They sat grouped around the high end of the table, Eachan at its head, with his two sons on his right and his two younger twin brothers on his left.

"They had good officers when I was there," Eachan was saying. He leaned over to fill Donal's glass, and Donal took it up automatically, listening with both ears.

"Freilanders all," said Ian, the grimmer of the two dark twins. "They run to stiffness of organization without combat to shake them up. Kensie says Mara or Kultis, and I say why not?"

"They have full companies of Dorsai there, I hear," said Mor, at Donal's right. The deep voice of Eachan answered from his left.

"They're show guards. I know of those. Why make a cake of nothing but icing? The Bond of Kultis likes to think of having an unmatched bodyguard; but they'd be farmed out to the troops fast enough in case of real trouble between the stars."

"And meanwhile," put in Kensie, with a sudden smile that split his dark face, "no action. Peacetime soldiering goes sour. The outfits split up into little cliques, the cake-fighters move in and an actual man—a Dorsai—becomes an ornament."

"Good," said Eachan, nodding. Donal swallowed absently from his glass and the unaccustomed whiskey burned fiercely at the back of his nose and throat. Little pricklings of sweat popped out on his forehead; but he ignored them, concentrating on what was being said. This talk was all for his benefit, he knew. He was a man now, and could no longer be told

what to do. The choice was his, about where he would go to take service, and they were helping him with what knowledge they had, of the eight systems and their ways.

". . . I was never great for garrison duty myself," Eachan was continuing. "A mercenary's job is to train, maintain and fight; but when all's said and done, the fighting's the thing. Not that everyone's of my mind. There are Dorsai and Dorsai—and not all Dorsai are Graemes."

"The Friendlies, now—" said Mor, and stopped with a glance at his father, afraid that he had interrupted.

"Go on," said Eachan, nodding.

"I was just about to point out," said Mor, "there's plenty of action on Association—and Harmony, too, I hear. The sects will always be fighting against each other. And there's bodyguard work—"

"Catch us being personal gunmen," said Ian, who—being closer in age to Mor than Mor's father, did not feel the need to be quite so polite. "That's no job for a soldier."

"I didn't mean to suggest it," said Mor, turning to his uncle. "But the psalm-singers rate it high among themselves, and that takes some of their best talent. It leaves the field posts open for mercenaries."

"True enough," said Kensie, equably. "And if they had less fanatics and more officers, those two worlds would be putting strong forces out between the stars. But a priest-soldier is only troublesome when he's more soldier than priest."

"I'll back that," said Mor. "This last skirmish I was in on Association, an elder came down the line after we'd taken one little town and wanted five of my men for hangmen."

"What did you do?" asked Kensie.

"Referred him to my Commandant —and then got to the old man first and told him that if he could find five men in my force who actually wanted such a job, he could transfer them out the next day."

Ian nodded.

"Nothing spoils a man for battle like playing butcher," he said.

"The old man got that," said Mor. "They got their hangmen, I heard—but not from me."

"The lusts are vampires," said Eachan, heavily, from the head of the table. "Soldiering is a pure art. A man with a taste for blood, money or women was one I never trusted."

"The women are fine on Mara and Kultis," grinned Mor. "I hear."

"I'll not deny it," said Kensie, merrily. "But you've got to come home, some day."

"God grant that you all may," said Eachan, somberly. "I am a Dorsai and a Graeme, but if this little world of ours had something else to trade for the contracts of out-world professionals besides the blood of our best fighting men, I'd be more pleased."

"Would *you* have stayed home, Eachan," said Mor, "when you were young and had two good legs?"

"No, Mor," said Eachan, heavily. "But there are other arts, beside the art of war—even for a Dorsai." He looked at his eldest son. "When our

forefathers settled this world less than a hundred and fifty years ago, it wasn't with the intention of providing gun-fodder for the other eight systems. They only wanted a world where no man could bend the destinies of another man against that second man's will."

"And that we have," said Ian, bleakly.

"And that we have," echoed Eachan. "The Dorsai is a free world where any man can do as he likes as long as he respects the rights of his neighbor. Not all the other eight systems combined would like to try their luck with this one world. But the price—the price—" He shook his head and refilled his glass.

"Now those are heavy words for a son who's just going out," said Kensie. "There's a lot of good in life just the way she is now. Besides, it's economic pressures we're under today, not military. Who'd want the Dorsai, anyway, besides us? We're all nut here, and very little kernel. Take one of the rich new worlds—like Ceta under Tau Ceti—or one of the richer, older worlds like Freiland, or Newton—or even old Venus herself. They've got cause to worry. They're the ones that are at each other's throats for the best scientists, the best technicians, the top artists and doctors. And the more work for us and the better life for us, because of it."

"Eachan's right though, Kensie," growled Ian. "They still dream of squeezing our free people up into one lump and then negotiating with that lump for the force to get the whip hand over all the other worlds." He leaned forward across the table toward Eachan and in the muted light of the dining room Donal saw the sudden white flash of the seared scar that coiled up his forearm like a snake and was lost in the loose sleeve of his short, undress tunic. "That's the danger we'll never be free of."

"As long as the cantons remain independent of the Council," said Eachan, "and the families remain independent of the cantons, there'll be no success for them, Ian." He nodded at all about the table. "That's my end of the job here at home. You can go out to the wars with easy consciences. I promise you your children will grow up free in this house—free of any man's will—or the house will no longer stand."

"I trust you," said Ian. His eyes were gleaming pale as the scar in the dimness and he was very close to that Dorsai violence of emotion that was at once so cold and so deadly. "I have two boys now under this roof. But remember no men are perfect—even the Dorsai. There was Mahub Van Ghent only five years back, who dreamed about a little kingdom among the Dorsai in the Midland South—only five years ago, Eachan!"

"He was on the other side of the world," said Eachan. "And he's dead now, at the hand of one of the Benali, his closest neighbor. His home is burnt and no man acknowledges himself a Van Ghent any more. What more do you want?"

"He should have been stopped sooner."

"Each man has a right to his own destiny," said Eachan, softly. "Until he crosses the line into another man's. His family has suffered enough."

"Yes," said Ian. He was calming down. He poured himself another drink. "That's true—that's true. They're not to blame."

"About the Exotics—" said Mor, gently.

"Oh, yes," answered Kensie, as if the twin brother that was so much a part of himself had never gotten excited at all. "Mara and Kultis—interesting worlds. Don't mistake them if you ever go there, Mor—or you either, Donal. They're sharp enough, for all their art and robes and trappings. They won't fight themselves, but they know how to hire good men. There's things being done on Mara and Kultis—and not only in the arts. Meet one of their psychologists, one time."

"They're honest," said Eachan.

"That, too," said Kensie. "But what catches at me is the fact they're going some place, in their own way. If I had to pick one of the other worlds to be born on—"

"I would always be a soldier," said Mor.

"You think so now," said Kensie, and drank. "You think so now. But it's a wild civilization, this year of our Lord, 2403, with its personality split a dozen different ways by a dozen different cultures. Less than five hundred years ago the average man never dreamed of getting his feet off the ground. And the farther we go the faster. And the faster the farther."

"It's the Venus group forcing that, isn't it?" asked Donal, his youthful reticence all burnt away in the hot fumes of the whiskey.

"Don't you think it," said Kensie. "Science is only one road to the future. Old Venus, Old Mars—Cassida, Newton—maybe they've had their day. Project Blaine's a rich and powerful old man, but he doesn't know all the new tricks they're dreaming up on Mara and Kultis, or the Friendlies—or Ceta, for that matter. Make it a point to take two good looks at things when you get out among the stars, you two young ones, because nine times out of ten that first glance will leave you fooled."

"Listen to him, boys," said Eachan from the top of the table. "Your uncle Kensie's a man and a half above the shoulders. I just wish I had as good advice to give you. Tell them, Kensie."

"Nothing stands still," said Kensie—and with those three words, the whiskey seemed to go to Donal's head in a rush, the table and the dark harsh-boned faces before him seemed to swim in the dimness of the dining room, and Kensie's voice came roaring at him as if from a great distance. "Everything changes, and that's what you must bear in mind. What was true yesterday about something may not be true today. So remember that and take no man's word about something without reservation, even mine. We have multiplied like the biblical locusts and spread out among the stars, splitting into different groups

with different ways. Now, while we still seem to be rushing forward to where I have no idea, at a terrific rate, increasing all the time, I have this feeling—as if we are all poised, hanging on the brink of something, something great and different and maybe terrible. It's a time to walk cautious, it is indeed."

"I'll be the greatest general that ever was!" cried Donal, and was startled as the rest to hear the words leap, stumbling and thick-tongued, but loud, from within him. "They'll see—I'll show them what a Dorsai can be!"

He was aware of them looking at them, though all their faces were blurred, except—by some trick of vision—that of Kensie, diagonally across the table from him. Kensie was considering him with somber, reading eyes. Donal was conscious of his father's hand on his shoulder.

"Time to turn in," said his father.

"You'll see—" said Donal, thickly. But they were all rising, picking up their glasses and turning to his father, who held his own glass up.

"May we all meet again," said his father. And they drank, standing. The remains of the whiskey in his glass flowed tasteless as water down Donal's tongue and throat—and for a second everything cleared and he saw these tall men standing around him. Big, even for Dorsai, they were; even his brother Mor topping him by half a head, so that he stood like a half-grown boy among them. But at that same instant of vision he was suddenly wrung with a terrible tenderness and pity for them, as if he was the grown one, and they the children to be protected. He opened his mouth to say, for once in his life, how much he loved them, and how always he would be there to take care of them—and then the fog closed down again; and he was only aware of Mor leading him stumblingly to his room.

Later, he opened his eyes in the darkness to become aware of a dim figure drawing the curtains of his room against the bright new light of the double moon, just risen. It was his mother; and with a sudden, reflexive action he rolled off his bed and lurched to her and put his hands on her shoulders.

"Mother—" he said.

She looked up at him with a pale face softened by the moonlight.

"Donal," she said tenderly, putting her arms around him. "You'll catch cold, Donal."

"Mother—" he said, thickly. "If you ever need me . . . to take care of you—"

"Oh, my boy," she said, holding his hard young body tightly to her, "take care of yourself; my boy . . . my boy—."

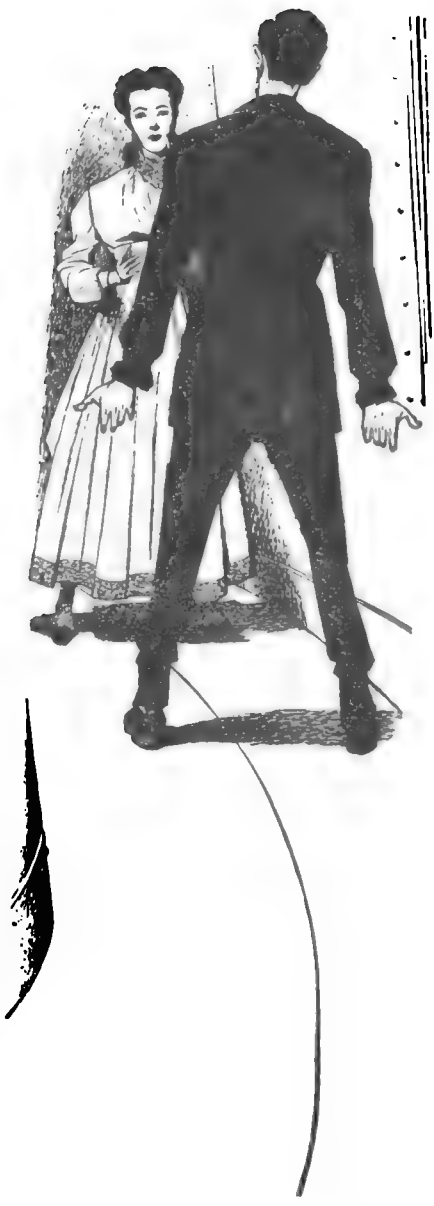
MERCENARY

Donal shrugged his shoulders in the tight civilian half-jacket and considered its fit as reflected in the mirror of his tiny, boxlike cabin. The mirror gave him back the image of someone almost a stranger. So much difference had three short weeks

brought about in him, already. Not that he was so different, but his own appraisal of himself had changed; so that it was not merely the Spanish-style jacket, the skin-tight under-tunic, and the narrow trousers that disappeared into boots as black as all the rest of the costume, that made him unfamiliar to himself—but the body within. Association with the men of other worlds had done this to his point of view. Their relative shortness had made him tall, their softness had made him hard, their untrained bodies had made his balanced and sure. Outbound from the Dorsai to Arcturus and surrounded by other Dorsai passengers, he had not noticed the gradual change. Only in the vast terminal on Newton, surrounded by their noisy thousands, had it come on him, all at once. And now, transhipped and outbound for the Friendlies, facing his first dinner on board a luxury-class liner where there would probably be no others from his world, he gazed at himself in the mirror and felt himself as suddenly come of age.

He went out through the door of his cabin, letting it latch quietly behind him, and turned right in the tightly narrow, metal-walled corridor faintly stale with the smell of dust from the carpet underfoot. He walked down its silence toward the main lounge and pushed through a heavy sealing door that sucked shut behind him, into the corridor of the next section.

He stepped into the intersection of the little cross corridor that led right and left to the washrooms of the sec-



tion ahead—and almost strode directly into a slim, tall girl in an ankle-length, blue dress of severe and conservative cut, who stood by the water fountain at the point of the intersection. She moved hastily back out of his way with a little intake of breath, backing into the corridor to the women's washroom. They stared at each other, halted, for a second.

"Forgive me," said Donal, and took two steps onward—but between these and a third, some sudden swift prompting made him change his mind without warning; and he turned back.

"If you don't mind—" he said.

"Oh, excuse me." She moved back again from the water fountain. He bent to drink; and when he raised his head from the fountain, he looked her full in the face again and recognized what had brought him back. The girl was frightened; and that strange, dark ocean of feeling that lay at the back of his oddness, had stirred to the gust of her palpable fear.

He saw her now, clearly and at once, at close range. She was older than he had thought at first—at least in her early twenties. But there was a clear-eyed immaturity about her—a hint that her full beauty would come later in life, and much later than that of the usual woman. Now, she was not yet beautiful; merely wholesome-looking. Her hair was a light brown, verging into chestnut, her eyes wide-spaced and so clearly green that, opening as she felt the full interest of his close gaze, they drove all the other color about her from his mind. Her nose was slim and straight, her mouth a little wide, her chin firm; and the whole of her face so perfectly in balance, the left side with the right, that it approached the artificiality of some sculptor's creation.

"Yes?" she said, on a little gasping intake of breath—and he saw, suddenly, that she was shrinking from him and his close survey of her.

He frowned at her. His thoughts were galloping ahead with the situation, so that when he spoke, it was unconsciously in the middle of the conversation he had in mind, rather than at the beginning.

"Tell me about it," said Donal.

"You?" she said. Her hand went to her throat above the high collar of her dress. Then, before he could speak again, it fell to her side and some of the tightness leaked out of her. "Oh," she said. "I see."

"See what?" said Donal, a little sharply; for unconsciously he had fallen into the tone he would have used to a junior cadet these last few years, if he had discovered one of them in some difficulty. "You'll have to tell me what your trouble is, if I'm going to be any help to you."

"Tell you—?" she looked desperately around her, as if expecting someone to come upon them at any moment. "How do I know you're what you say you are?"

For the first time Donal check-reined the horses of his galloping estimate of the situation; and, looking back, discovered a possible misconception on her part.

"I didn't say I was anybody," he answered. "And in fact—I'm not. I just happened to be passing by and saw you seemed upset over something. I offered to help."

"Help?" Her eyes widened again and her face suddenly paled. "Oh, no—" she murmured, and tried to go around him. "Please let me go. Please!"

He stood his ground.

"You were ready to accept help from someone like me, if he could only provide proofs of identity, a second ago," said Donal. "You might as well tell me the rest of it."

That stopped her efforts to escape. She stiffened, facing him.

"I haven't told you anything."

"Only," said Donal, ironically, "that you were waiting here for someone. That you did not know that someone by sight, but expected him to be a man. And that you were not sure of his bona fides, but very much afraid of missing him." He heard the hard edge in his own voice and forced it to be more gentle. "Also that you're very frightened and not very experienced at what you're doing. Logic could take it further."

But she had herself under control now.

"Will you move out of the way and let me by?" she said evenly.

"Logic might make it that what you're engaged in is something illegal," he replied.

She sagged under the impact of his last word as if it had been a blow; and, turning her face blindly to the wall, leaned against it.

"What are you?" she said brokenly. "Did they send you to trap me?"

"I tell you," said Donal, with just a hint of exasperation, "I'm nothing but a passer-by who thought maybe I could help."

"Oh, I don't believe you!" she said, twisting her face away from him. "If you're really nobody . . . if nobody sent you . . . you'll let me go. And forget you ever saw me."

"Small sense in that," said Donal. "You need help evidently. I'm equipped to give it. I'm a professional soldier. A Dorsai."

"Oh," she said. The tension drained from her. She stood straighter and met his eyes with a look in which he thought he read some contempt. "One of those."

"Yes," he said. Then frowned. "What do you mean *one of those?*"

"I understand," she answered. "You're a mercenary."

"I prefer the term professional soldier," he said—a little stiffly in his turn.

"The point is," she said, "you're for hire."

He felt himself growing cold and angry. He inclined his head to her and stepped back, leaving her way clear. "My mistake," he said, and turned to leave her.

"No, wait a minute," she said. "Now that I know what you really are, there's no reason why I can't use you."

"None at all, of course," said Donal.

She reached in through a slit in her tight gown and produced a small,

thick folding of some printed matter, which she pushed into his hand.

"You see this is destroyed," she said. "I'll pay you—whatever the usual rates are." Her eyes widened suddenly as she saw him unfold what he held and start to read it. "What are you doing? You aren't supposed to read that! How dare you!"

She grabbed for the sheet, but he pushed her back absently with one hand. His gaze was busily running down the form she had given him, his own eyes widening at the sight of the facsimile portrait on it, which was that of the girl herself.

"Anea Marlivana," he said. "Select of Kultis."

"Well, what if I am?" she blazed. "What about it?"

"Only," said Donal, "that I expected your genes to imply intelligence."

Her mouth fell open.

"What do you mean by that?"

"Only that you're one of the worst fools I've had the bad fortune to meet." He put the sheet into his pocket. "I'll take care of it."

"You will?" Her face lit up. A second later it was twisted in wrath. "Oh, I don't like you!" she cried. "I don't like you at all!"

He looked at her a little sadly.

"You will," he said, "if you live long enough." He turned about and pushed open the door through which he had come just a few minutes ago.

"But wait a minute—" her voice leaped after him. "Where will I see you after you've got rid of it? How much do I have to pay—"

He let the door, sucking to behind him, be the period to that question of hers—and his answer to it.

He went back through the section he had just traversed to his own cabin. There, with the door locked, he considered the sheet she had given him, a little more closely. It was nothing more—and nothing less—than a five-year employment contract, a social contract, for her services as companion in the entourage of William, Prince, and Chairman of the Board of that very commercial planet Ceta which was the only habitable world circling the sun Tau Ceti. And a very liberal social contract it was, requiring no more than that she accompany William wherever he wished to go and supply her presence at such public and polite social functions as he might require. It was not the liberalness of the contract that surprised him so much—a Select of Kultis would hardly be contracted to perform any but the most delicately moral and ethical of duties—but the fact that she had asked him to destroy it. Theft of contract from her employer was bad enough, breach of contract infinitely worse—calling for complete rehabilitation—but destruction of contract required the death penalty wherever any kind of government operated. The girl, he thought, must be insane.

But—and here the fine finger of irony intruded into the situation—being the Select of Kultis she could not possibly be insane, any more than an ape could be an elephant. On the

extreme contrary, being the product of a number of the most carefully culled forebearers on that planet where careful genetic culling and wizardry of psychological techniques was commonplace, she must be eminently sane. True, she had impressed Donal on first acquaintance as possessing nothing much out of the ordinary except a suicidal foolishness. But this was one instance where you had to go by the record books. And the record books implied that if anything about this business was abnormal, it was the situation itself, and not the girl involved in it.

Thoughtfully, Donal fingered the contract. Anea had clearly had no conception at all of what she was requesting when she so blithely required him to destroy it. The single sheet he held, and even the words and signatures upon it, were all integral parts of a single giant molecule which in itself was well-nigh indestructible and could not be in any way altered or tampered with short of outright destruction. As for destruction itself—Donal was quite sure that there was nothing aboard this ship that could in any way burn, shred, dissolve, or in any other fashion obliterate it. And the mere possession of it by anyone but William, its rightful owner, was as good as an order of sentence.

A soft chime quivered on the air of his cabin, announcing the serving of a meal in the main lounge. It chimed twice more to indicate that this was the third of the four meals interspersed throughout the ship "day." Contract in hand, Donal half-turned toward the little orifice of the disposal slot that led down to the central incinerator. The incinerator, of course, was not capable of disposing of the contract—but it might be that it could lie unnoticed there until the ship had reached its destination and its passengers had dispersed. Later, it would be difficult for William to discover how it had reached the incinerator in the first place.

Then he shook his head, and replaced the contract in his pocket. His motives for doing so were not entirely clear to himself. It was that oddness of his at work again, he thought. Also, he told himself that it seemed a sloppy way of handling the situation this girl had got him into. Quite typically, he had already forgotten that his participation in the matter was all of his own contriving.

He straightened his half-jacket and went out of his cabin and down the long corridor through various sections to the main lounge. A slight crowding of likewise dinner-bound passengers in the narrow entrance to the lounge delayed him momentarily; and, in that moment, looking over the heads of those before him, he caught sight of the long captain's table at the far end of the lounge and of the girl, Anea Marlivana, amongst those seated at it.

The others seated with her appeared to consist of a strikingly handsome young officer of field rank—a Freilander, by the look of him—a rather untidy, large young man almost

as big as the Freilander, but possessing just the opposite of the other's military bearing; in fact, he appeared to half-slouch in his seat as if he were drunk. And a spare, pleasant-looking man in early middle age with iron-gray hair. The fifth person at the table was quite obviously a Dorsai—a massive, older man in the uniform of a Freiland marshal. The sight of this last individual moved Donal to sudden action. He pushed abruptly through the little knot of people barring the entrance and strode openly across the room to the high table. He extended his fist across it to the Dorsai marshal.

"How do you do, sir," he said. "I was supposed to look you up before the ship lifted; but I didn't have time. I've got a letter for you from my father, Eachan Khan Graeme. I'm his second son, Donal."

Blue Dorsai eyes as cold as river water lifted under thick gray brows to consider him. For part of a second the situation trembled on the balance-point of Dorsai pride with the older man's curiosity weighed against the bare-faced impudence of Donal's claim to acquaintance. Then the marshal took Donal's fist in a hard grip.

"So he remembered Hendrik Galt, did he?" the marshal smiled. "I haven't heard from Eachan for years."

Donal felt a slight, cold shiver of excitement course down his spine. Of all people, he had chosen one of the ranking Dorsai soldiers of his day to bluff acquaintance with. Hendrik Galt, First Marshal of Freiland.

"He sends you his regards, sir," said Donal, "and . . . but perhaps I can bring you the letter after dinner and you can read it for yourself."

"To be sure," said the marshal. "I'm in Stateroom Nineteen."

Donal was still standing. The occasion could hardly be prolonged further. But rescue came—as something in Donal had more than half-expected it would—from farther down the table.

"Perhaps," said the gray-haired man in a soft and pleasant voice, "your young friend would enjoy eating with us before you take him back to your stateroom, Hendrik?"

"I'd be honored," said Donal, with glib promptness. He pulled out the empty float before him and sat down upon it, nodding courteously to the rest of the company at the table as he did so. The eyes of the girl met him from the table's far end. They were as hard and still as emeralds caught in the rock.

MERCENARY II

"Anea Marlivana," said Hendrik Galt, introducing Donal around the table. "And the gentleman who was pleased to invite you—William of Ceta, Prince and Chairman of the Board."

"Greatly honored," murmured Donal, inclining his head toward them.

". . . The Unit Commandant, here, my adjutant . . . Hugh Killien—"

Donal and the Commandant Freilander nodded to each other.

". . . And ArDell Montor, of Newton." The loose-limbed young man slumping in his float, lifted a careless, half-drunken hand in a slight wave of acknowledgment. His eyes —so dark as to appear almost black under the light eyebrows that matched his rather heavy, blond hair, cleared for a disconcerting fraction of a second to stare sharply at Donal, then faded back to indifference. "ArDell," said Galt, humorlessly, "set a new high score for the competitive exams on Newton. His field was social dynamics."

"Indeed," muttered the Newtonian, with something between a snort and a laugh. "Indeed, was. Was, indeed." He lifted a heavy tumbler from the table before him and buried his nose in its light golden contents.

"ArDell—" said the gray-haired William, gently reproving. ArDell lifted his drink-pale face and stared at the older man, snorted again, on laughter, and lifted the tumbler again to his lips.

"Are you enlisted somewhere at the moment, Graeme?" asked the Freilander, turning to Donal.

"I've a tentative contract for the Friendlies," said Donal. "I thought I'd pick between the Sects when I got there and had a chance to look over the opportunities for action."

"Very Dorsai of you," said William, smiling, from the far end of the table, next to Anea. "Always the urge to battle."

"You over-compliment me, sir," said Donal. "It merely happens that promotion comes more quickly on a battlefield than in a garrison, under ordinary conditions."

"You're too modest," said William.

"Yes, indeed," put in Anea, suddenly. "Far too modest."

William turned about to gaze quizzically at the girl.

"Now, Anea," he said. "You mustn't let your Exotic contempt for violence breed a wholly unjustified contempt for this fine young man. I'm sure both Hendrik and Hugh agree with him."

"Oh, they would—of course," said Anea, flashing a look at the other two men. "Of course, they would!"

"Well," said William, laughing, "we must make allowances for a Select, of course. As for myself, I must admit to being male enough, and unreconstructed enough, to like the thought of action, myself. I . . . ah, here comes the food."

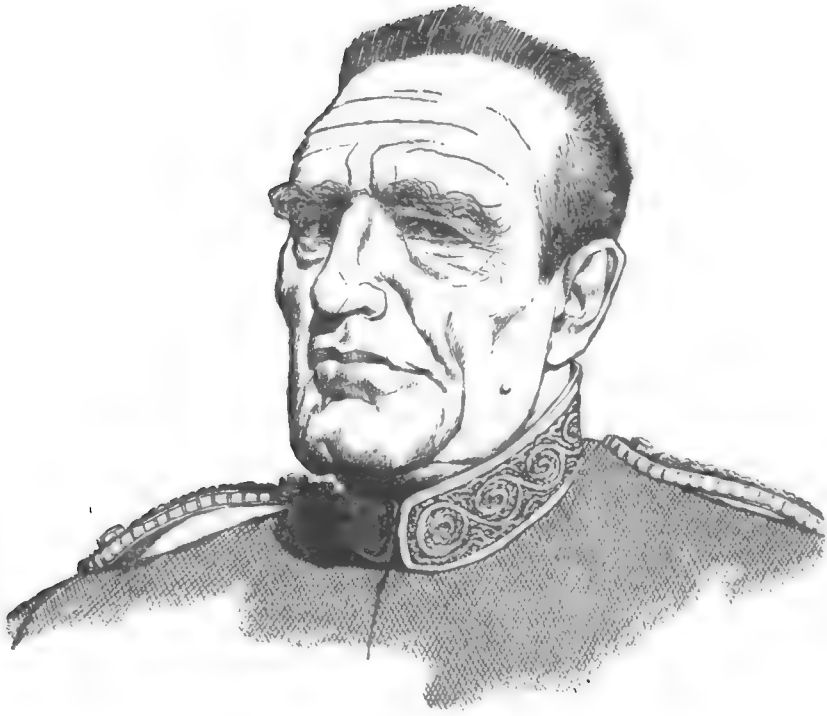
Brimming soup plates were rising above the surface of the table in front of everybody but Donal.

"You'd better get your order in now," said William. And, while Donal pressed the communicator key before him and attended to this necessary duty, the rest of them lifted their spoons and began their meal.

". . . Donal's father was a classmate of yours, was he, Hendrik?" inquired William, as the fish course was being served.

"Merely a close friend," said the marshal, dryly.

"Ah," said William, delicately lifting a portion of the white, delicate flesh on a fork. "I envy you Dorsai



for things like that. Your professions allow you to keep friendship and emotional connections unrelated to your work. In the Commercial area" —he gestured with a slim, tanned hand—"a convention of general friendliness obscures the deeper feelings."

"Maybe it's what the man is to begin with," answered the marshal. "Not all Dorsai are soldiers, Prince, and not all Cetans are entrepreneurs."

"I recognize that," said William. His eyes strayed to Donal. "What would you say, Donal? Are you a simple mercenary soldier, only, or do you find yourself complicated by other desires?"

The question was as blunt as it was obliquely put. Donal concluded that ingenuousness overlaid with a touch of venality was perhaps the most proper response.

"Naturally, I'd like to be famous," he said—and laughed a trifle self-consciously, "and rich."

He caught the hint of a darkening cloud on the brow of Galt. But he could not be concerned with that now. He had other fish to fry. There would, he hoped, be a chance to clear

up the marshal's contempt for him at some later time. For the present he must seem self-seeking enough to arouse William's interest.

"Very interesting," said William, pleasantly. "How do you plan to go about becoming these pleasant things?"

"I was hoping," said Donal, "maybe to learn something of the worlds by being out among them—something I might be able to use to my own advantage, as well as others."

"Good Lord, is *that* all?" said the Freilander, and laughed in a way that invited the rest of the table to join in with him.

William, however, did not laugh—although Anea joined her own clear amusement to that of the commandant, and ArDell's snorted chuckle.

"No need to be unkind, Hugh," he said. "I like Donal's attitude. I had the same sort of notion myself once—when I was younger." He smiled in a kindly fashion on Donal. "You must come talk to me, too," he said, "after you've had your chat with Hendrik. I like young men with ambition."

ArDell snorted with laughter again. William turned to look sadly at him.

"You should try to eat, ArDell," he said. "We'll be making a phase shift in four hours or so; and if you don't have something solid on your stomach—"

"My stomach?" said the young man, drunkenly. "And what if my stomach should reach universal dimensions, out of phase? What if *I* should reach universal dimensions; and be everywhere and never come back to point position again?" He grinned at Williams. "What a waste of good food."

Anea had paled to a sickly color.

"If you'll excuse me—" she murmured, rising hastily.

"I don't blame you a bit!" said William sharply. "ArDell, that was in inexcusable bad taste. Hugh, help Anea to her stateroom."

"I don't want him!" flared Anea. "He's just like all the rest of you—"

But the Freilander was already on his feet, looking almost like a recruiting poster in his trim uniform and coming around the table to take her arm. She jerked away from him, turned, and went unsteadily out of the lounge, Hugh following closely behind her. They passed through the doorway into the corridor, but as they turned to move out of sight, Donal saw her turn to the tall soldier and lean into the protection of his arm, just before they disappeared.

William was continuing to speak calm and acid words of disapprobation to ArDell, who made no retort, but gazed drunkenly and steadily back at him out of his black, unmoving eyes. During the rest of the meal the talk turned to military affairs, in particular field strategy, in which triologue—ArDell pointedly excluded—Donal was able to win back some of the personal credit which his earlier remark about fame and riches had cost him—in the marshal's eyes.

". . . Remember," William said, as they parted in the corridor outside

the lounge, after the meal. "Come in and see me after you've finished with Hendrik, Donal. I'll be glad to help you if I can." And with a smile, and a nod, he turned away.

Donal and Galt went off down the narrow corridor that forced them to walk one behind the other. Following the thick shoulders of the older man, Donal was surprised to hear him ask: "Well, what do you think of them?"

"Sir?" said Donal. Hesitating, he chose what he took to be the safest subject. "I'm a little surprised about the girl."

"Anea?" said Galt, stopping before a door marked with the number nineteen.

"I thought a Select of Kultis would be—" Donal stopped, honestly at a loss, "more . . . more in control of herself."

"She's very healthy, very normal, very intelligent—but those are only potentialities," retorted the marshal, almost gruffly. "What did you expect?"

He threw open the door, ushered them both in, and closed the door firmly behind them. When he turned around, there was a harder, more formal note to his voice.

"All right now," he said, sharply, "what's all this about a letter?"

Donal took a deep breath. He had tried hard to read Galt's character during the course of the dinner—and he staked everything now in the honesty of his answer, on what he thought he had seen there.

"No letter, sir," he said. "To the best of my knowledge, my father never met you in his life."

"Thought as much," said Galt. "All right—what's it all about, then?" He crossed to a desk on the other side of the room, took something from a drawer, and when he turned about Donal was astonished to find him filling an antique pipe with tobacco.

"That Anea, sir," he said. "I never met such a fool in my life." And he told, fully and completely, the story of the episode in the corridor. Galt half-sat on the edge of the desk, the pipe in his mouth now, and alight, puffing little clouds of white smoke which the ventilating system whisked away the second they were formed.

"I see," he said, when Donal had finished. "I'm inclined to agree with you. She is a fool. And just what sort of insane idiot do you consider yourself?"

"I, sir?" Donal was honestly astonished.

"I mean you, boy," said Galt, taking the pipe out of his mouth. "Here you are, still damp from school, and sticking your nose into a situation a full planetary government'd hesitate at." He stared in frank amazement at Donal. "Just what did you think—what did you figure . . . hell, boy, what did you *plan* to get out of it?"

"Why, nothing," said Donal. "I was only interested in seeing a ridiculous and possibly dangerous situation smoothed out as neatly as possible. I admit I hadn't any notion of the part

William played in the matter—he's apparently an absolute devil."

The pipe rattled in Galt's suddenly unclenched jaws and he had to grab it quickly with one thick hand to keep it from falling. He took it from his lips and stared in amazement at Donal.

"Who told you that?" he demanded.

"No one," said Donal. "It's obvious, isn't it?" Galt laid his pipe down on the table and stood up.

"Not to ninety-nine per cent of the civilized worlds, it isn't," he retorted. "What made it so obvious to you?"

"Certainly," said Donal, "any man can be judged by the character and actions of the people with which he surrounds himself. And this William has an entourage of thwarted and ruined people."

The marshal stiffened.

"You mean me?" he demanded.

"Naturally not," said Donal. "After all—you're a Dorsai." The stiffness went out of Galt. He grinned a little sourly and, reaching back for his pipe, retrieved and relit it.

"Your faith in our common origin is . . . quite refreshing," he said. "Go on. On this piece of evidence you read William's character, do you?"

"Oh, not just that," said Donal. "Stop and think of the fact that a Select of Kultis finds herself at odds with him. And the good instincts of a Select are inbred. Also, he seems to be an almost frighteningly brilliant sort of man, in that he can dominate personalities like Anea, and this fellow Montor, from Newton—who who must be a rather high-level mind himself to have rated as he did on his tests."

"And someone that brilliant must be a devil?" queried Galt, dryly.

"Not at all," explained Donal, patiently. "But having such intellectual capabilities, a man must show proportionately greater inclinations toward either good or evil than lesser people. If he tends toward evil, he may mask it in himself—he may even mask its effect on the people with which he surrounds himself. But he has no way of producing the reflections of good which would ordinarily be reflected from his lieutenants and initiates—and which, if he was truly good—he would have no reason to try and hide. And by that lack, you can read him."

Galt took the pipe from his mouth and gave a long, slow whistle. He stared at Donal.

"You weren't brought up on one of the Exotics, by any chance, were you?" he asked.

"No, sir," said Donal. "My father's mother was a Maran, though. And my mother's mother was Maran."

"This," Galt paused and tamped thoughtfully in the bowl of his pipe —it had gone out—with one thick forefinger, "business of reading character—did you get this from your mother, or your grandmother—or is it your own idea?"

"Why, I imagine I must have heard it somewhere," replied Donal. "But surely it stands to reason—anyone

would arrive at it as a conclusion, with a few minutes thought."

"Possibly the majority of us don't think," said Galt, with the same dryness. "Sit down, Donal. And I'll join you."

They took a couple of armchair floats facing each other. Galt put his pipe away.

"Now, listen to me," he said, in a low and sober voice. "You're one of the oddest young fish I can remember meeting. I don't know quite what to do with you. If you were my son, I'd pack you up in quarantine and ship you home for ten more years seasoning before I let you out among the stars—all right—" he interrupted himself abruptly, raising a silencing hand as Donal's mouth opened. "I know you're a man now and couldn't be shipped anywhere against your will. But the way you strike me now is that you've got perhaps one chance in a thousand of becoming something remarkable, and about nine hundred and ninety-nine chances of being quietly put out of the way before the year's out. Look, boy, what do you know about the worlds, outside the Dorsai?"

"Well," said Donal. "There are fourteen planetary governments not counting the anarchic setups on Dunnin's World and Coby—"

"Governments, my rear echelon!" interrupted Galt, rudely. "Forget your civics lessons! Governments in this twenty-fifth century are mere machinery. It's the men who control them, who count. Project Blaine, on Venus; Sven Holman, on Earth; Eldest Bright on Harmony, the very planet we're headed for—and Sayona the Bond on Kultis, for the Exotics."

"General Kamal—" began Donal.

"Is nothing!" said Galt, sharply. "How can the Elector of the Dorsai be anything when every little canton hangs to its independence with tooth and nail? No, I'm talking about the men who pull the strings between the stars. The ones I mentioned, and others." He took a deep breath. "Now, how do you suppose our Merchant Prince and Chairman of the Board on Ceta ranks with those I mentioned?"

"You'd say he's their equal?"

"At least," said Galt. "At least. Don't be led astray by the fact that you see him traveling like this, on a commercial ship, with only the girl and Montor with him. Chances are he owns the ship, the crew and officers —and half the passengers."

"And you and the commandant?" asked Donal, perhaps more bluntly than was necessary. Galt's features started to harden; and then he relaxed.

"A fair question," he rumbled. "I'm trying to get you to question most of the things you've taken for granted. I suppose it's natural you'd include myself. No—to answer your question—I am First Marshal of Freiland, still a Dorsai, and with my professional services for hire, and nothing more. We've just hired out five light divisions to the First Dissident Church, on Harmony, and I'm coming along to observe that they

operate as contracted for. It's a complicated deal—like they are all—involving a batch of contract credits belonging to Ceta. Therefore William."

"And the commandant?" persisted Donal.

"What about him?" replied Galt. "He's a Freilander, a professional, and a good one. He'll take over one of the three-Force commands for a short test period when we get to Harmony, for demonstration purposes."

"Have you had him with you long?"

"Oh, about two standard years," said Galt.

"And he's good, professionally?"

"He's damn good," said Galt. "Why do you think he's my adjutant? What're you driving at, anyway?"

"A doubt," said Donal, "and a suspicion." He hesitated for a second. "Neither of which I'm ready to voice yet."

Galt laughed.

"Save that Maran character-sniffing of yours for civilians," he said. "You'll be seeing a snake under every brush. Take my word for it, Hugh's a good, honest soldier—a bit flashy, perhaps—but that's all."

"I'm hardly in a position to argue with you," murmured Donal, stepping aside gracefully. "You were about to say something about William, when I interrupted you?"

"Oh, yes," said Galt. He frowned. "It adds up to this—and I'll make it short and clear. The girl's none of your business; and William's deadly medicine. Leave them both alone. And if I can help you to the kind of post you're after—"

"Thank you very much," said Donal. "But I believe William will be offering me something."

Galt blinked and stared.

"Hell's breeches, boy!" he exploded after half a second. "What gives you that idea?"

Donal smiled a little sadly.

"Another one of my suspicions," he said. "Based on what you call that Maran character-sniffing of mine, no doubt." He stood up. "I appreciate your trying to warn me, sir." He extended his fist. "If I could talk to you again, sometime?"

Galt stood up himself, taking the proffered fist, mechanically.

"Any time," he said. "Damned if I understand you."

Donal peered at him, suddenly struck by a thought.

"Tell me, sir," he asked. "Would you say I was—odd?"

"Odd!" Galt almost exploded on the word. "Odd as—" his imagination failed him. "What makes you ask that?"

"I just wondered," said Donal. "I've been called that so often. Maybe they were right."

He withdrew his fist from the marshal's grasp. And on that note, he took his leave.

MERCENARY III

Returning again up the corridor toward the bow of the ship, Donal allowed himself to wonder, a little wistfully, about this incubus of his

own strange difference from other people. He had thought to leave it behind with his cadet uniform. Instead, it seemed, it continued to ride with him, still perched on his shoulders. Always it had been this way. What seemed so plain, and simple and straightforward to himself, had always stuck others as veiled, torturous, and involved. Always he had been like a stranger passing through a town, the ways of whose people were different, and who looked on him with a lack of understanding amounting to suspicion. Their language failed on the doorstep of his motives and could not enter the lonely mansion of his mind. They said "enemy" and "friend"; they said "strong" and "weak"—"them" and "us". They set up a thousand arbitrary classifications and distinctions which he could not comprehend, convinced as he was that all people were only people—and there was very little to choose between them. Only, you dealt with them as individuals, one by one; and always remembering to be patient. And if you did this successfully, then the larger, group things all came out right.

Turning again into the entrance of the lounge, he discovered—as he had half-expected to—the young Newtonian ArDell Montor, slumped in a float by one end of the bar that had made its appearance as soon as the dinner tables had been taken up into the walls. A couple of other small, drinking groups sparsely completed the inhabitants of the lounge—but none of these were having anything to do with Montor. Donal walked directly to him; and Montor, without moving, lifted the gaze of his dark eyes to watch Donal approach.

"Join you?" said Donal.

"Honored," replied the other—not so much thickly, as slowly, from the drink inside him. "Thought I might like to talk to you." His fingers crept out over the buttons on the bar-pad next to him. "Drink?"

"Dorsai whiskey," said Donal. Montor pressed. A second later a small transparent goblet, full, rose to the bartop. Donal took it and sipped cautiously. The drinking the night he had attained his majority had acquainted him with the manner in which alcohol affected him; and he had made a private determination never to find himself drunk again. It is a typical matter of record with him, that he never did. Raising his eyes from the glass, he found the Newtonian staring steadily at him with his eyes unnaturally clear, lost, and penetrating.

"You're younger than I," said ArDell. "Even if I don't look it. How old do you think I am?"

Donal looked him over curiously. Montor's face, for all its lines of weariness and dissipation, was the scarcely mature visage of a late adolescent—a situation to which his shock of uncombed hair and the loose-limbed way he sprawled in his float, contributed.

"A quarter of a standard century," said Donal.

"Thirty-three years absolute," said ArDell. "I was a school-child, a

monk, until I was twenty-nine. Do you think I drink too much?"

"I think there's no doubt about it," answered Donal.

"I agree with you," said ArDell, with one of his sudden snorts of laughter. "I agree with you. There's no doubt about it—one of the few things in this God-abandoned universe about which there is no doubt. But that's not what I was hoping to talk to you about."

"What was that?" Donal tasted his glass of whiskey again.

"Courage," said ArDell, looking at him with an empty, penetrating glance. "Have you got courage?"

"It's a necessary item for a soldier," said Donal. "Why do you ask?"

"And no doubts? No doubts?" ArDell swirled the golden drink in his tall tumbler and took a swallow from it. "No secret fears that when the moment comes your legs will weaken, your heart will pound, you'll turn and run?"

"I will not, of course, turn and run," said Donal. "After all, I'm a Dorsai. As for how I'll feel—all I can say is, I've never felt the way you describe. And even if I did—"

Above their heads a single mellow chime sounded, interrupting.

"Phase shift in one standard hour

and twenty minutes," announced a voice. "Phase shift in one standard hour and twenty minutes. Passengers are advised to take their medication now and accomplish the shift while asleep, for their greatest convenience."

"Have you swallowed a pill yet?" asked ArDell.

"Not yet," said Donal.

"But you will?"

"Of course." Donal examined him with interest. "Why not?"

"Doesn't taking medication to avoid the discomfort of a phase shift strike you as a form of cowardice?" asked ArDell. "Doesn't it?"

"That's foolish," said Donal. "Like saying it's cowardly to wear clothes to keep you warm and comfortable, or to eat, to keep from starving. One is a matter of convenience; the other is a matter of"— he thought for a second —"duty."

"Courage is doing your duty?"

". . . In spite of what you personally might want. Yes," said Donal.

"Yes," said ArDell, thoughtfully. "Yes." He replaced his empty glass on the bar and pressed for a refill. "I *thought* you had courage," he said, musingly, watching the glass sink, fill, and begin to re-emerge.

"I am a Dorsai," said Donal.

"Oh, spare me the glories of careful breeding!" said ArDell, harshly, picking up his now-full glass. As he turned back to face Donal, Donal saw the man's face was tortured. "There's more to courage than that. If it was only in your genes—" he broke off suddenly, and leaned toward Donal. "Listen to me," he almost whispered. "I'm a coward."

"Are you sure?" said Donal, levelly. "How do you know?"

"I'm frightened sick," whispered ArDell. "Sick-frightened of the universe. What do you know about the mathematics of social dynamics?"

"It's a predicative system of mathematics, isn't it?" said Donal. "My education didn't lie in that direction."

"No, no!" said ArDell, almost fretfully. "I'm talking about the statistics of social analysis, and their extrapolation along lines of population increase and development." He lowered his voice even further. "They approach a parallel with the statistics of random chance!"

"I'm sorry," said Donal. "That means nothing to me."

ArDell gripped Donal's arm suddenly with one surprisingly strong hand.

"Don't you understand?" he murmured. "Random chance provides for every possibility—including dissolution. It must come, because the chance is there. As our social statistics grow into larger figures, we, too, entertain the possibility. In the end, it must come. We must destroy ourselves. There is no other alternative. And all because the universe is too big a suit of clothes for us to wear. It gives us room to grow too much, too fast. We will reach a statistically critical mass —and then," he snapped his fingers, "the end!"

"Well, that's a problem for the future," said Donal. But then, be-

cause he could not help reacting to the way the other man was feeling, he added, more gently, "Why does it bother you, so much?"

"Why, don't you see?" said ArDell. "If it's all to go—just like that—as if it never has been, then what was the use of it all? What's to show for our existence? I don't mean things we built—they decay fast enough. Or knowledge. That's just a copying down from an open book into our own language. It has to be those things that the universe didn't have to begin with and that we brought to it. Things like love, and kindness—and courage."

"If that's the way you feel," said Donal, gently withdrawing his arm from the other's grasp, "why drink this way?"

"Because I *am* a coward," said ArDell. "I feel it out there, all the time, this enormousness that is the universe. Drinking helps me shut it out—that God-awful knowledge of what it can do to us. That's why I drink. To take the courage I need out of a bottle, to do the little things like passing through phase shift without medication."

"Why," said Donal, almost tempted to smile. "What good would that do?"

"It's facing it, in a little way," ArDell fixed him with his dark and pleading eyes. "It's saying, in one little instance—go ahead, rip me to the smallest shreds you can manage, spread me over your widest limits. I can take it."

Donal shook his head.

"You don't understand," said ArDell, sinking back in his float. "If I could work, I wouldn't need the alcohol. But I'm walled away from work nowadays. It's not that way with you. You've got your job to do; and you've got courage—the real kind. I thought maybe I could . . . well, never mind. Courage wouldn't be transferable, anyway."

"Are you going to Harmony?" asked Donal.

"Whither my Prince goes, there go I," said ArDell, and snorted his laugh again. "You should read my contract, sometime." He turned back to the bar. "Another whiskey?"

"No," said Donal, standing up. "If you'll excuse me—"

"I'll see you again," muttered ArDell, keying for another drink. "I'll be seeing you."

"Yes," said Donal. "Until then."

"Until then," ArDell lifted his newly filled glass from the bar. The chime sounded again overhead, and the voice reminded them that only seventy-odd minutes remained before shift-time. Donal went out.

Half an hour later, after he had gone back to his own room for one more careful rereading and study of Anea's contract, Donal pressed the button on the door of the stateroom of William, Prince and Chairman of the Board, on Ceta. He waited.

"Yes?" said the voice of William, over his head.

"Donal Graeme, sir," said Donal. "If you aren't busy—"

"Oh, of course—Donal. Come in!"

The door swung open before him and Donal entered.

William was sitting on a plain float before a small deskboard holding a pile of papers and a tiny portable secretary. A single light glowed directly above him and the deskboard, silvering his gray hair. Donal hesitated, hearing the door click to behind him.

"Find a seat somewhere," said William, without looking up from his papers. His fingers flickered over the keys of the secretary. "I have some things to do."

Donal turned about in the gloom outside the pool of light, found an armchair float and sat down in it. William continued for some minutes, scanning through his papers, and making notes on the secretary.

After a while he shoved the remaining papers aside and the deskboard, released, drifted with its burden to over against a farther wall. The single overhead light faded and a general illumination flooded the cabin.

Donal blinked at the sudden light. William smiled.

"And now," he said, "what's the nature of your business with me?"

Donal blinked, stared, and blinked again.

"Sir?" he said.

"I think we can avoid wasting time by ignoring pretenses," said William, still in his pleasant voice. "You pushed yourself on us at the table because you wanted to meet someone there. It was hardly the marshal—your Dorsai manners could have found a better way than that. It was certainly not Hugh, and most unlikely to be ArDell. That leaves Anea; and she's pretty enough, and you're both young enough to do something that foolish . . . but, I think not, under the conditions." William folded his lean fingers together, and smiled. "That leaves me."

"Sir, I—" Donal started to stand up, with the stiffness of outraged dignity.

"No, no," said William, gesturing him back. "Now it'd be foolish to leave, after going to all this trouble to get here, wouldn't it?" His voice sharpened. "Sit down!"

Donal sat.

"Why did you want to see me?" asked William.

Donal squared his shoulders.

"All right," he said. "If you want me to put it bluntly . . . I think I might be useful to you."

"By which," said William, "you think you might be useful to yourself, by tapping the till, as it were, of my position and authority—go on."

"It so happened," said Donal, "that I came into possession of something belonging to you."

William extended his hand, without a word. After a second's hesitation, Donal extracted Anea's contract from his pocket and passed it over. William took it, unfolded it, and glanced over it. He laid it carelessly down on a little table beside him.

"She wanted me to get rid of it for her," said Donal. "She wanted to hire me to dispose of it for her. Evidently she didn't know how hard it is

to destroy a sheet of the material contracts are made on."

"But you took the job," said William.

"I made no promises," said Donal, painfully.

"But from the start, you intended to bring it straight to me."

"I believe," said Donal, "it's your property."

"Oh, of course," said William. He smiled at Donal for a long moment. "You realize, of course," he said, finally, "that I needn't believe a word of what you've said. I only need to assume that you stole it yourself and later got cold feet about disposing of it—and dreamed up this cock-and-bull story in an attempt to sell it back to me. The captain of this ship would be glad to put you under arrest at my word and hold you for trial as soon as we reach Harmony."

A slight, cold, galvanic shiver ran down Donal's spine.

"A Select of Kultis won't lie under oath," he said. "She—"

"I see no reason to involve Anea in this," said William. "It could all be handled very conveniently without her. My statement against yours."

Donal said nothing. William smiled again.

"You see," said William, "the point I'm laboring to bring home to you. You happen not only to be venal, but a fool."

"*Sir!*" the word shot from Donal's lips. William waved a disinterested hand.

"Save your Dorsai rages for someone who'll be impressed by them. I know as well as you do, you've no intention of attacking me. Possibly, if you were a different sort of Dorsai—but you're not. You are as I say, both venal and a fool. Accept these statements for the obvious facts they are; and we can get down to business."

He looked at Donal. Donal said nothing.

"Very well, then," went on William. "You came to me, hoping I could find you of some use. As it happens, I can. Anea is, of course, just a foolish young girl—but for her benefit, as well as my own, being her employer, we'll have to see she doesn't get into serious trouble. Now, she has confided in you once. She may again. If she does so—by no means discourage her. And to keep you available for such confidences," William smiled again, quite good humoredly, this time, "I believe I can find you a commission as Force-Leader, under Commandant Hugh Killien, when we touch down on Harmony. There is no reason why a military career shouldn't go hand in hand with whatever other uses I can find for you."

"Thank you, sir," said Donal.

"Not at all—" A chime sounded from some hidden wall speaker. "Ah—phase shift in five minutes." William picked up a small silver box from a table near his feet, and sprung it open. "Have you taken your medication, yet? Help yourself."

He extended to Donal.

"Thank you, sir," said Donal carefully. "I have."

"Then," said William, helping

himself to a white tablet, and replacing the box. "I believe that is all."

"I believe so, sir," said Donal.

Donal inclined his head and went out. Stopping outside the stateroom door only long enough to take one of his own phase shift sedatives, he headed back toward his own stateroom. On the way, he stopped by the ship's library to check out an information spool on the First Dissident Church, of Harmony; and this delayed him sufficiently so that he was passing down one of the long sectional corridors when the phase shift occurred.

He had been prudently asleep during those previous shifts he had gone through while outbound from Dorsai; and, of course, he had learned years ago what to expect. In addition, he was fully medicated; and the shift itself was over before it was really begun. In fact, it took place in no-time, in no conceivable interval at all. Yet it *had* happened; and some inextinguishable recognizing part of him *knew* and remembered that he had been born apart, down to the most fractional elements of his being, and spread to the wide universe and caught and collected and reassembled some arbitrary point light-years from his destruction. And it was this memory, not the shift itself, that made him falter, for one short step, before he took up again his steady march back to his stateroom. And the memory would stay with him.

He continued on down the corridor; but he was far from having run his gauntlet for the day. As he reached the end of one section, Anea stepped out from the cross-bar corridor there that was the exact duplicate of the one, several sections down, where he had first met her. Her green eyes were afire.

"You've been seeing him!" she snapped, barring his way.

"Seeing . . . oh, William," he said.

"Don't deny it."

"Why should I?" Donal looked at her almost with wonder. "Surely, it's nothing to make a secret about?"

She stared at him.

"Oh!" she cried. "You just don't care for anything, do you? What did you do . . . about what I gave you?"

"I gave it back to its owner, of course," said Donal. "There was no other sensible thing I could do."

She turned suddenly so white that he almost reached out to catch her, certain she was about to faint. But she did no such womanish thing. Her eyes, as she stared at him, were shocked to enormity.

"Oh!" she breathed. "You . . . you traitor. You *cheat!*" and before he could make a move or say a word to stop her, she had whirled about and was running off down the corridor back in the direction from which he had come.

With a certain wry unhappiness—for, in spite of his rather low opinion of her common sense, he had really expected her to listen to his explanation—he took up his solitary walk to his stateroom. He traveled the rest of the way without meeting anyone. The corridors, in the aftermath of the

phase-shift were deserted by prudent passengers.

Only, passing a certain stateroom, he heard sounds of sickness from within; and, looking up, recognized the number on its door as one he had looked up just now on his recent trip to the library.

It was the stateroom of ArDell Montor; and that would be the man himself inside it now, unmedicated and racked by the passing of the phase shift, fighting his own lone battle with the universe.

FORCE-LEADER

"All right, gentlemen," said Hugh Killien.

He stood, confident and impressive in his chameleon battle-dress, with the fingertips of his right hand resting on the gently domed surface of the mapviewer before him.

"If you'll gather around the viewer, here—" he said. The five Force-Leaders moved in until all six men stood thickly clustered around the meter-square area of the viewer. The illumination from the blackout shell enclosing them beat down and met the internal upward illumination of the viewer, so that Donal, glancing around at his fellow-officers, was irresistibly reminded of men caught between wrath and wrath, in some small package section of that hell their First Dissident Church Liaison-Elder had been so eloquent about, only a few hours since at the before-battle service.

". . . Our position is here," Hugh was saying. "As your commandant I make you the customary assurance that it is a perfectly tenable position and that the contemplated advance in no way violates the Mercenaries Code. Now—" he went on more briskly, "as you can see, we occupy an area five kilometers in front and three kilometers in depth, between these two ridges. Second Command of Battle Unit 176 to our right, Fourth Command of Battles to our left.

"The contemplated action calls for the Second and Fourth Commands to hold fast in full strength on both our flanks, while we move forward at sixty per cent of strength and capture a small town called Faith Will Succour, which is *here—*"

His index finger stabbed down and rested upon the domed image of the map.

". . . At approximately four kilometers of distance from our present position. We will use three of our five Forces, Skuak's White's and Graeme's; and each Force will make its separate way to the objective. You will each have your individual maps. There are woods for the first twelve hundred meters. After that, you will have to cross the river, which is about forty meters in width, but which Intelligence assures us is fordable at the present time with a maximum depth of a hundred and twenty centimeters. On the other side it will be woods again, thinning out gradually right up to the edge of the town. We leave in

twenty minutes. It'll be dawn in an hour and I want all three Forces across that river before full daylight. Any questions?"

"What about enemy activity in the area?" asked Skuak. He was a short, stocky Cassidan, who looked Mongoloid, but was actually Eskimo in ancestry. "What kind of opposition can we expect?"

"Intelligence says nothing but patrols. Possibly a small Force holding the town, itself. Nothing more." Hugh looked around the circle of faces. "This should be bread and butter. Any more questions?"

"Yes," said Donal. He had been studying the map. "What sort of military incompetent decided to send us out at only sixty per cent of strength?"

The atmosphere in the shell froze suddenly and sharply. Donal looked up to find Hugh Killien's eyes on his across the viewer.

"As it happened," said the commandant, a slight edge to his words, "it was *my* suggestion to Staff, Graeme. Perhaps you've forgotten—I'm sure none of the other Force-Leaders have—but this is a demonstration campaign to show the First Dissident Church we're worthy of our hire."

"That hardly includes gambling the lives of four hundred and fifty men," retorted Donal, unmoved.

"Graeme," said Hugh, "you're junior officer here; and I'm commandant. You ought to know I don't have to explain tactics to you. But just to set your mind at rest, Intelligence has given a clear green on enemy activity in the area."

"Still," persisted Donal, "why take unnecessary chances?"

Hugh sighed in exasperation.

"I certainly shouldn't have to give you lessons in strategy," he said bitingly. "I think you abuse the right the Code gives you to question Staff decisions. But to put an end to this—there's a good reason why we'll be using the minimum number of men. Our main thrust at the enemy is to come through this area. If we moved forward in strength, the United Orthodox forces would immediately begin to strengthen defenses. But doing it this way, it should appear we're merely moving to take up a natural vacuum along the front. Once we have the town tied down, the Second and Fourth Commands can filter in to reinforce us and we are in position to mount a full-scale attack at the plains below. Does that answer you?"

"Only partially," said Donal "I—"

"Give me patience!" snapped the Freilander. "I have five campaigns to my credit, Force-Leader. I'd hardly stick my own neck in a noose. But I'll be taking over White's Force and leaving him in command back here in the Area. You, I and Skuak will make the assay. *Now,* are you satisfied?"

There was, of course, no reply to be made to that. Donal bowed his head in submission and the meeting broke up. Walking back to his Force area, however, alongside Skuak, Donal remained unreconstructed enough to put an extra question to the Cassidan.

"Do *you* think I'm starting at shadows?" asked Donal.

"Huh!" grunted Skuak. "It's his responsibility. He ought to know what he's doing." And, on that note, they parted; each to marshal his own men.

Back in his own Force area, Donal found that his Groupmen had already assembled his command. They stood under arms, drawn up in three lines of fifty men each, with a senior and junior Groupman at the head of each line. The ranking senior Groupman, a tall, thin Cetan veteran named Morphy, accompanied him as he made his rounds of the ranks, inspecting the men.

They were a good unit, Donal thought, as he paced down between the rows. Well-trained men, battle-seasoned, although in no sense elite troops, since they had been picked at random by the Elders of the First Dissident Church—William having stipulated only his choice of officers for the demonstration Battle Unit. Each man carried a handgun and knife in addition to his regular armament; but they were infantry, spring-rifle men. Weapon for weapon, any thug in the back alley of a large city had more, and more modern firepower; but the trick with modern warfare was not to outgun the enemy, but carry weapons he could not gimmick. Chemical and radiation armament was too easily put out of action from a distance. Therefore, the spring-rifle with its five thousand-sliver magazine and its tiny, compact, non-metallic mechanism which could put a sliver in a man-sized target at a thousand meters time after time with unvarying accuracy.

Yet, thought Donal, pacing between the silent men in the faint darkness of pre-dawn, even the spring-rifle would be gimmickable one of these days. Eventually, the infantryman would be back to the knife and short sword. And the emphasis would weigh yet again more heavily on the skill of the individual soldier. For sooner or later, no matter what fantastic long-range weapons you mounted, the ground itself had to be taken —and for that there had never been anything but the man in the ranks.

Donal finished his inspection and went back to stand in front of them.

"Rest, men," he said. "But hold your ranks. All Groupmen over here with me."

He walked off out of earshot of the men in ranks and the Groupmen followed him. They squatted in a circle and he passed on to them the orders of the Staff he had just received from Hugh, handing out maps to each of them.

"Any questions?" he asked, as Hugh had asked his Force-Leaders.

There were none. They waited for him to go on. He, in turn looked slowly around the circle, assessing these men on whom his command would depend.

He had had a chance to get to know them in the three weeks previous to this early morning. The six who faced him represented, in miniature, the varying reactions his appointment as Force-Leader had produced in the Force as a whole. Of the hundred and fifty men under him, a few were doubtful of him because of his youth and lack of battle experience. A larger number were unequivocably glad to have him over them because of the Dorsai reputation. A few, a very few, were of that class of men who bristle automatically, as man to man, whenever they find themselves in contact with another individual who is touted as better than they. The instinctive giant-killers. Of this type was the Senior Groupman of the Third Group, an ex-Coby miner named Lee. Even squatting now in this circle, on the brink of action, he met Donal's

eye with a faint air of challenge, his brush of dark hair stiffly upright in the gloom, his bony jaw set. Such men were troublemakers unless they had responsibility to hold them down. Donal revised his original intention to travel, himself, with the Third Group.

"We'll split up into patrol-sized units of twenty-five men each," he said. "There'll be a Senior or Junior Groupman to each unit. You'll move separately as units, and if you encounter an enemy patrol, you'll fight as a unit. I don't want any unit going to the rescue of another. Is that clear?"

They nodded. It was clear.

"Morphy," said Donal, turning to the thin Senior Groupman. "I want you to go with the Junior unit of Lee's Group, which will have the rearguard position. Lee will take his own half-group directly in front of you. Chassen"—he looked at the Senior Groupman of the Second Group—"you and Zolta will take positions third and fourth from the rear. I want you personally in fourth position. Suki, as Junior of the First Group, you'll be ahead of Chassen and right behind me. I'll take the upper half of the First Group in advance position."

"Force," said Lee. "How about communications?"

"Hand-signal. Voice. And that's all. And I don't want any of you closing up to make communication easier. Twenty-meter minimum interval between units." Donal looked around the circle again. "Our job here is to penetrate to the little town as quickly and quietly as we can. Fight only if you're forced into it; and break away as quickly as you can."

"The word is it's supposed to be a Sunday walk," commented Lee.

"I don't operate by back-camp rumor," said Donal flatly, his eyes seeking out the ex-miner. "We'll take all precautions. You Groupmen will be responsible for seeing that your men are fully equipped with everything, including medication."

Lee yawned. It was not a gesture of insolence—not quite.

"All right," said Donal. "Back to your Groups."

The meeting broke up.

A few minutes later the almost inaudible peep of a whistle was carried from Force to Force; and they began to move out. Dawn was not yet in the sky, but the low overcast above the treetops was beginning to lighten at their backs.

The first twelve hundred meters through the woods, though they covered it cautiously enough, turned out to be just what Lee had called it—a Sunday walk. It was when Donal, in the lead with the first half-Group, came out on the edge of the river that things began to tighten up.

"Scouts out!" he said. Two of the men from the Group sloshed into the smoothly flowing water, and, rifles held high, waded across its gray expanse to the far side. The glint of their rifles, waved in a circle, signaled the all clear and Donal led the

rest of the men into the water and across.

Arrived on the far side, he threw out scouts in three directions—ahead, and along the bank each way—and waited until Suki and his men appeared on the far side of the river. Then, his scouts having returned with no sight of the enemy, Donal spread his men out in light skirmish order and went forward.

The day was growing rapidly. They proceeded by fifty meter jumps, sending the scouts out ahead, then moving the rest of the men up when the signal came back that the ground was clear ahead. Jump succeeded jump and there was no contact with the enemy. A little over an hour later, with the large orange disk of E. Eridani standing clear of the horizon, Donal looked out through a screen of bushes at a small, battle-torn village that was silent as the grave.

Forty minutes later, the three Forces of the Third Command, Battle Unit 176 were united and dug in about the small town of Faith Will Succour. They had uncovered no local inhabitants.

They had had no encounter with the enemy.

FORCE-LEADER

The name of Force-Leader Graeme was mud.

The Third Command, or at least that portion of it that was dug in around the village, made no great attempt to hide the fact from him. If he had shown at all that he was sensitive to their opinion of him, they would have made even less. But there was something about his complete indifference to their attitude that put a check to their obvious contempt. Nevertheless, the hundred and fifty men that had been forced by him to make their approach on the village under full equipment and maximum security effort, and the three hundred other men who had made a much more casual and easy approach, and were congratulating themselves on being out from under such an officer, agreed in an opinion of Donal that had reached its nadir! There is only one thing that veterans hate worse than being made to sweat unnecessarily in garrison; and that is being made to sweat unnecessarily in the field. The word had gone out that the day's work was to be a Sunday walk. And it *had* been a Sunday walk, except for those serving under a green young Dorsai officer, name of Graeme. The men were not happy.

Along about twilight, as the sunset was fading through the bushy-limbed trees that were the local mutant variform of the Earthly conifer that had been imported when this planet was terraformed, a runner came from Hugh at Command HQ, just outside the enemy end of the village. He found Donal seated astride a fallen log, studying a map of the local area.

"Signal from Battles," said the runner, squatting beside the log.

"Stand up," said Donal, quietly. The runner stood. "Now, what's the signal?"

"Second and Third Commands won't be moving up until tomorrow morning," said the runner, sulkily.

"Signal acknowledged," said Donal, waving him off. The runner turned and hurried away with another instance of the new officer's wax-and-braid to relate to the other enlisted men back at HQ.

Left to himself, Donal continued to study the map as long as the light lasted. When it was completely gone, he put the map away, produced a small black whistle from his pocket and peeped for his ranking Senior Groupman.

A moment later a thin body loomed up against the faintly discernible sky beyond the treetops.

"Morphy, sir. Reporting," came the voice of the Senior Groupman.

"Yes—" said Donal. "Sentries all posted, Groupman?"

"Yes, sir." The quality of Morphy's tone was completely without inflection.

"Good. I want them alert at all times. Now, Morphy—"

"Yes, sir?"

"Who do we have in the Force that has a good sense of smell?"

"Smell, sir?"

Donal merely waited.

"Well, sir," said Morphy, finally and slowly. "There's Lee, he practically grew up in the mines, where you have to have a good sense of smell. That's the mines on Coby, Force-Leader."

"I assumed those were the mines you meant," said Donal, dryly. "Get Lee over here, will you?"

Morphy took out his own whistle and blew for the Senior Groupman, Third Group. They waited.

"He's about the camp, isn't he?" said Donal, after a moment. "I want all the men within whistle sound that aren't on sentry duty."

"Yes, sir," said Morphy. "He'll be here in a moment. He knows it's me. Everybody sounds a little different on these whistles and you get to know them like voices after a while, sir."

"Groupman," said Donal. "I'd be obliged if you didn't feel the need to keep telling me things I already know."

"Yes, sir," said Morphy, subsiding.

Another shadow loomed up out of the darkness.

"What is it, Morphy?" said the voice of Lee.

"I wanted to see you," spoke up Donal, before the Senior Groupman had a chance to answer. "Morphy tells me you have a good sense of smell."

"I do pretty well," said Lee.

"Sir!"

"I do pretty well, sir."

"All right," said Donal. "Both of you take a look at the map here. Look sharp. I'm going to make a light." He flicked on a little flash, shielded by his hand. The map was revealed, spread out on the log before them. "Look here," said Donal, pointing. "Three kilometers off this way. Do you know what that is?"

"Small valley," said Morphy. "It's way outside our sentry posts."

"We're going there," Donal said.

The light went out and he got up from the log.

"Us? Us, sir?" the voice of Lee came at him.

"The three of us," said Donal. "Come along." And he led the way surefootedly out into the darkness.

Going through the woods, he was pleased to discover the two Groupmen were almost as sure-footed in the blackness as himself. They went slowly but carefully for something over a mile; and then they felt the ground beginning to slope upward under their feet.

"All right. Down and easy," said Donal quietly. The three men dropped to their bellies and began in skilled silence to work their way up to the crest of the slope. It took them a good half-hour; but at the end of that time they lay side by side just under the skyline of a ridge, looking over into a well of blackness that was a small, hidden valley below. Donal tapped Lee on the shoulder and when the other turned his face toward him in the gloom, Donal touched his own nose, pointed down into the valley and made sniffing motions. Lee turned his face back to the valley and lay in that position for several minutes, apparently doing nothing at all. However, at the end of that time, he turned toward Donal again, and nodded. Donal motioned them all back down the slope.

Donal asked no questions and the two Groupmen volunteered nothing until they were once more back safely within the lines of their own sentry posts. Then Donal turned toward Lee.

"Well, Groupman," he said. "What did you smell?"

Lee hesitated. His voice, when he answered, had a note of puzzlement in it.

"I don't know, sir," he answered. "Something—sour, sort of. I could just barely smell it."

"That's the best you can do?" inquired Donal. "Something sour?"

"I don't know, sir," said Lee. "I've got a pretty good nose, Force—in fact," a note of belligerence crept into his voice. "I've got a damned good nose. I never smelled anything like this before. I'd remember."

"Have either of you men ever contracted on this planet before?"

"No," said Lee.

"No, sir," answered Morphy.

"I see," said Donal. They had reached the same log from which they had started a little less than three hours before. "Well, that'll be all. Thank you, Groupmen."

He sat down on the log again. The other two hesitated a moment; and then went off together.

Left alone, Donal consulted the map again; and sat thinking for a while. Then he rose, and hunting up Morphy, told him to take over the Force, and stay awake. Donal himself was going to Command HQ. Then he took off.

Command HQ was a blackout shell containing a sleepy orderly, a map viewer and Skuak.

"The commandant around?" asked Donal, as he came in.

"Been asleep three hours," said Skuak. "What're you doing up? *I* wouldn't be if I didn't have the duty."

"Where's he sleeping?"

"About ten meters off in the bush, at eleven o'clock," said Skuak. "What's it all about? You aren't going to wake him, are you?"

"Maybe he'll still be awake," said Donal; and went out.

Outside the shell, and the little cleared space of the HQ area, he catfooted around to the location Skuak had mentioned. A battle hammock was there, slung between two trees, with a form mounding its climate cover. But when Donal reached in to put his hand on the form's shoulder, it closed only on the soft material of a rolled-up battle jacket.

Donal breathed out and turned about. He went back the way he had come, past the Command HQ area, and was stopped by a sentry as he approached the village.

"Sorry, Force," said the sentry. "Commandant's order. No one to go into the village area. Not even himself, he says. Booby traps."

"Oh, yes—thank you, sentry," said Donal; and, turning about, went off into the darkness.

As soon as he was safely out of sight, however, he turned again, and worked his way back past the sentry lines and in among the houses of the village. The small but very bright moon which the Harmonites called The Eye of the Lord, was just rising, and throwing, through the ruined walls, alternate patches of tricky silver and black. Slipping in and out of the black places, he began patiently to search the place, house by house, and building by building.

It was a slow and arduous process, carried out the way he was doing it, in complete silence. And the moon mounted in the sky. It was nearly four hours later that he came upon what he was searching for.

In the moonlit center of a small building's roofless shell, stood Hugh Killien, looking very tall and efficient in his chameleon battle-dress. And close to him—almost close enough to be in his arms—was Anea, the Select of Kultis. Beyond them both, blurred by action of the polarizer that had undoubtedly been the means of allowing it to carry her invisibly to this spot, was a small flying platform.

". . . Sweet," Hugh was saying, his resonant voice pitched so low it barely carried to the ears of Donal, shrouded in shadow outside the broken wall, "Sweet, you must trust me. Together we can stop him; but you must let me handle it. His power is tremendous—"

"I know, I know!" she interrupted, fiercely, all but wringing her hands. "But every day we wait makes it more dangerous for you, Hugh. Poor Hugh—" gently she raised her hand to touch his cheek, "what I've dragged you into."

"Dragged? Me?" Hugh laughed, low and confidently. "I went into

this with my eyes open." He reached out for her. "For you—"

But she slipped away from him.

"Now's not the time for that," she said. "Anyway, it's not me you're doing this for. It's Kultis. He's not going to use me," she said fiercely, "to get *my* world under his thumb!"

"Of course, it's for Kultis," said Hugh. "But you *are* Kultis, Anea. You're everything I love about the Exotics. But don't you see; all we have to work on are your suspicions. You *think* he's planning against the Bond, against Sayona, himself. But thats' not enough for us to go to Kultis with."

"But what can I do?" she cried. "I can't use his own methods against him. I can't lie, or cheat, or set agents on him while he still holds my contract. I . . . I just *can't*. That's what being Select means!" She clenched her fists. "I'm trapped by my own mind, my own body." She turned on him suddenly. "You said when I first spoke to you, two months ago you said you had evidence!"

"I was mistaken," Hugh's tone was soothing. "Something came to my attention—at any rate I was wrong. I have my own built-in moral system, too, Anea. It may not reach the level of psychological blockage like yours," he drew himself up, looking very martial in the moonlight. "But I know what's honorable and right."

"Oh, I know. I know, Hugh—" she was all contrition. "But I get so desperate. You don't know—"

"If he had only made some move against you personally—"

"Me?" She stiffened. "He wouldn't dare! A Select of Kultis—and besides," she added with more of a touch of common sense than Donal had heretofore given her credit for possessing, "that'd be foolish. He'd have nothing to gain; and Kultis would be alerted against him."

"I don't know," Hugh scowled in the moonlight. "He's a man like anyone else. If I thought—"

"Oh, Hugh!" she giggled suddenly, like any schoolgirl. "Don't be absolutely ridiculous!"

"Ridiculous!" His tone rang with wounded feelings.

"Oh, now—I didn't mean that. Hugh, now stop looking like an elephant that just had his trunk stung by a bee. There's no point in making things up. He's far too intelligent to—" she giggled again, then sobered. "No, it's his head we have to worry about; not his heart."

"Do you worry about my heart?" he asked in a low voice.

She looked down at the ground.

"Hugh—I do like you," she said. "But you don't understand. A Select is a . . . a symbol."

"If you mean you can't—"

"No, no, not that—" she looked up quickly. "I've no block against love, Hugh. But if I was involved in something . . . something small, and mean, it's what it would do to those back on Kultis to whom a Select means something— You *do* understand?"

"I understand that I'm a soldier," he said. "And that I never know whether I'll have a tomorrow or not."

"I know," she said. "And they send you out on things like this, dangerous things."

"My dear little Anea," he said, tenderly. "How little you understand what it is to be a soldier. I volunteered for this job."

"Volunteered?" She stared at him.

"To go look for danger—to go look for opportunities to prove myself!" he said, fiercely. "To make myself a name, so that the stars will believe I'm the kind of man a Select of Kultis could want and belong with!"

"Oh, Hugh!" she cried on a note of enthusiasm. "If you only could! If only something would make you famous. Then we could really fight him!"

He checked, staring at her in the moonlight with such a sandbagged expression that Donal, in the shadows, nearly chuckled.

"Must you always be talking about politics?" he cried.

But Donal had already turned away from the two of them. There was no point in listening further. He moved silently out of earshot; but after that he went quickly, not caring about noise. His search for Hugh had taken him clear across the village, so that what was closest to him now was his own Force area. The short night of Harmony's northern continent was already beginning to gray toward dawn. He headed toward his own men, one of his odd certainties chilling him.

"Halt!" cried one of his own sentries, as Donal broke clear of the houses. "Halt and give—sir!"

"Come with me!" snapped Donal. "Where's the Third Group Area from here?"

"This way, sir," said the man; and led the way, trotting to keep up with Donal's long strides.

They burst into the Third Group area. Donal put his whistle to his lips and blew for Lee.

"What—?" mumbled a sleepy voice from half a dozen meters' distance. A hammock heaved and disgorged the bony figure of the exminer. "What the hell . . . sir?"

Donal strode up to him and with both hands swung him about so that he faced toward the enemy territory from which the dawn breeze was coming. "Smell!" he ordered.

Lee blinked, scrubbed his nose with one knotty fist, and stifled a yawn. He took a couple of deep breaths, filling his lungs, his nostrils spread—and suddenly he snapped into complete awakedness.

"Same thing, sir," he said, turning to Donal. "Stronger."

"All right!" Donal wheeled about on the sentry. "Take a signal to Senior Groupmen, First and Second Groups. Get their men into trees, high up in trees, and get themselves up, too."

"Trees, sir?"

"Get going! I want every man in this Force a dozen meters off the ground in ten minutes—*with* their weapons!" The sentry turned to make off. "If you've got time after making that signal, try to get through to Command HQ with it. If you see you can't, climb a tree yourself. Got that?"

"Yes, sir."

"Then get going!"

Donal wheeled about and started himself on the business of getting the sleeping Third Group soldiers out of their hammocks and up the trunks of tall trees. It was not done in ten minutes. It was closer to twenty by the time they were all off the ground. A group of Dorsai schoolboys would have made it in a quarter of the time, from the sounder sleep of youth. But on the whole, thought Donal, pulling himself at last up into a tree, they had been in time; and that was what counted.

He did not stop as the others had, at a height of a dozen meters. Automatically, as he hurried the others out of their hammocks, he had marked the tallest tree in the area; and this he continued to climb until he had a view out over the tops of the lesser vegetation of the area. He shaded his eyes against the new-rising sun, peering off toward enemy territory, and between the trees.

"Now, what d'we do?" floated up an aggrieved voice from below and off to one side of his own lofty perch. Donal took his palm from his eyes and tilted his head downward.

"Senior Groupman Lee," he said in a low, but carrying voice. "You will shoot the next man who opens his mouth without being spoken to first by either you, or myself. That is a direct order."

He raised his head again, amid a new silence, and again peered off

under his palm through the trees.

The secret of observation is patience. He saw nothing, but he continued to sit, looking at nothing in particular, and everything in general; and after four slow minutes he was rewarded by a slight flicker of movement that registered on his gaze. He made no effort to search it out again, but continued to observe in the same general area; and gradually, as if they were figures developing on a film out of some tangled background, he became aware of men slipping from cover to cover, a host of men, approaching the camp.

He leaned down again through the branches.

"No firing until I blow my whistle," he said, in an even lower voice than before. "Pass the word—quietly."

He heard, like the murmur of wind in those same branches, the order being relayed on to the last man in the Third Group and—he hoped—to the Second and First Groups as well.

The small, chameleon-clad figures continued to advance. Squinting at them through the occulting leaves and limbs, he made out a small black cross sewn to the right shoulder of each battle-dress. These were no mercenaries. These were native elite troops of the United Orthodox Church itself, superb soldiers and wild fanatics both. And even as the recognition confirmed itself in his mind, the advancing men broke into a charge upon the camp, bursting forth all at once in the red-gray dawnlight into full-throated yips and howls, underlaid a second later by the high-pitched singing of their spring-gun slivers as they ripped air and wood and flesh.

They were not yet among the trees where Donal's force was hiding. But his men were mercenaries, and had friends in the camp the Orthodox elite were attacking. He held them as long as he could, and a couple of seconds longer; and then, putting his whistle to lips, he blew with the damper completely off—a blast that echoed from one end of the camp to the other.

Savagely, his own men opened up from the trees. And for several moments wild confusion reigned on the ground. It is not easy to tell all at once from which direction a sliver gun is being fired at you. For perhaps five minutes, the attacking Orthodox soldiers labored under the delusion that the guns cutting them down were concealed in some ground-level ambush. They killed ruthlessly, everything they could see on their own eye-level; and, by the time they had discovered their mistake, it was too late. On their dwindled numbers was concentrated the fire of a hundred and fifty-one rifles; and if the marksmanship of only one of these was up to Dorsai standards, that of the rest was adequate to the task. In less than forty minutes from the moment in which Donal had begun to harry his sleep-drugged men up into the trees, the combat was over.

The Third Group slid down out of their trees and one of the first down

—a soldier named Kennebuc—calmly lifted his rifle to his shoulder and sent a sliver through the throat of an Orthodox that was writhing on the ground, nearby.

"None of that!" cried Donal, sharply and clearly; and his voice carried out over the area. A mercenary hates wanton killing, it not being his business to slaughter men, but to win battles. But not another shot was fired. The fact said something about a significant change in the attitude of the men of the Third Command toward a certain new officer by the name of Graeme.

Under Donal's orders, the wounded on both sides were collected and those with serious wounds medicated. The attacking soldiery had been wiped out almost to a man. But it had not been completely one-sided. Of the three hundred-odd men who had been on the ground at the time of the attack, all but forty-three—and that included Force-Leader Skuak—were casualties.

"Prepare to retreat," ordered Donal—and, at that moment, the man facing him turned his head to look past at something behind Donal. Donal turned about. Pounding out of the ruined village, hand gun in his fist, was Commandant Killien.

In silence, not moving, the surviving soldiers of the Command watched him race up to them. He checked at their stare; and his eyes swung about to focus on Donal. He dropped to a walk and strode up to within a few meters of the younger officer.

"Well, Force-Leader!" he snapped. "What happened? Report?"

Donal did not answer him directly. He raised his hand and pointed to Hugh; and spoke to two of the enlisted men standing by.

"Soldiers," he said. "Arrest that man. And hold him for immediate trial under Article Four of the Mercenaries Code."

VETERAN

Directly after getting into the city, with his canceled contract stiff in his pocket, and cleaning up in his hotel room, Donal went down two flights to pay his visit to Marshal Hendrik Galt. He found him in, and concluded certain business with him before leaving to pay his second call at a different hotel across the city.

In spite of himself, he felt a certain weakness in the knees as he announced his presence to the doorbot. It was a weakness most men would have excused him. William, Prince of Ceta, was someone few persons would have cared to beard in his own den; and Donal, in spite of what he had just experienced, was still a young—a very young—man. However, the doorbot invited him in, and summoning up his calmest expression, Donal strode into the suite.

William was, as the last time Donal had seen him, busy at his desk. This was no affectation on William's part, as a good many people between the stars could testify. Seldom has one individual accomplished in a single day what William accomplished in

the way of business, daily, as a matter of routine. Donal walked up to the desk and nodded his greeting. William looked up at him.

"I'm amazed to see you," he said.

"Are you, sir?" said Donal.

William considered him in silence for perhaps half a minute.

"It's not often I make mistakes," he said. "Perhaps I can console myself with the thought that when I do they turn out to be on the same order of magnitude as my successes. What inhuman kind of armor are you wearing, young man, that leads you to trust yourself in my presence, again?"

"Possibly the armor of public opinion," replied Donal. "I've been in the public eye, recently. I have something of a name, nowadays."

"Yes," said William. "I know that type of armor from personal experience, myself."

"And then," said Donal, "you did send for me."

"Yes." And then, without warning, Wiliam's face underwent a change to an expression of such savagery as Donal had never seen before. "How dare you!" snarled the older man, viciously. "How dare you!"

"Sir," said Donal, wooden-faced, "I had no alternative."

"No alternative! You come to me and have the effrontery to say—no alternative?"

"Yes, sir," said Donal.

William rose in swift and lithe motion. He stalked around the desk to stand face to face, his eyes uptilted a little to bore into the eyes of this tall young Dorsai.

"I took you on to follow my orders, nothing else!" he said icily. "And you—grandstand hero that you are—wreck everything."

"Sir?"

"Yes—*'sir'*. You backwoods moron! You imbecile! Who told you to interfere with Hugh Killien? Who told you to take any action about him?"

"Sir," said Donal. "I had no choice."

"No choice? How—no choice?"

"My command was a command of mercenaries," answered Donal, without moving a muscle. "Commandant Killien had given his assurance in accordance with the Mercenaries Code. Not only had his assurance proved false, he himself had neglected his command while in the field and in enemy territory. Indirectly, he had been responsible for the death of over half his men. As ranking field officer present, I had no choice but to arrest him and hold him for trial."

"A trial held on the spot?"

"It is the code, sir," said Donal. He paused. "I regret it was necessary to shoot him. The court-martial left me no alternative."

"Again!" said William. "No alternative! Graeme, the space between the stars does not go to men who can find *no alternatives!*" He turned about abruptly, walked back around his desk and sat down.

"All right," he said, coldly but with all the passion gone, "get out of here." Donal turned and walked toward the door as William picked up a paper from before him. "Leave your

address with my doorbot," said William. "I'll find some kind of a post for you on some other world."

"I regret, sir—" said Donal.

William looked up.

"It didn't occur to me that you would have any further need of me. Marshal Galt has already found me another post."

William continued to look at him for a long moment. His eyes were as cold as the eyes of a basilisk.

"I see," he said at last, slowly. "Well, Graeme, perhaps we shall have something to do with each other in the future."

"I'll hope we will," said Donal. He went out. But, even after he had closed the door behind him, he thought he could feel William's eyes still coming at him through all the thickness of its panel.

He had yet one more call to make, before his duty on this world was done. He checked the directory out in the corridor and went down a flight.

The doorbot invited him in; and ArDell Montor, as large and untidy as ever, with his eyes only slightly blurred from drink, met him halfway to the entrance.

"You!" said ArDell, when Donal explained what it was he wanted. "She won't see *you*." He hunched his heavy shoulders, looking at Donal; and for a second his eyes cleared. Something sad and kind looked out of them, to be replaced with bitter humor. "But the old fox won't like it. I'll ask her."

"Tell her it's about something she needs to know," said Donal.

"I'll do that. Wait here," ArDell went out the door.

He returned in some fifteen minutes.

"You're to go up," he said. "Suite 1890." Donal turned toward the door. "I don't suppose," said the Newtonian, almost wistfully, "I'll be seeing you again."

"Why, we may meet," answered Donal.

"Yes," said ArDell. He stared at Donal penetratingly. "We may at that. We may at that."

Donal went out and up to Suite 1890. The doorbot let him in. Anea was waiting for him, slim and rigid in one of her high-collared, long dresses of blue.

"Well?" she said. Donal considered her almost sorrowfully.

"You really hate me, don't you?" he said.

"You killed him!" she blazed.

"Oh, of course." In spite of himself, the exasperation she was always so capable of tapping in him, rose to the surface. "I had to—for your own good."

"For my good!"

He reached into his tunic pocket and withdrew a small telltale. But it was unlighted. For a wonder this apartment was unbugged. And then he thought—*of course, I keep forgetting who she is.*

"Listen to me," he said. "You've been beautifully equipped by gene selection and training to be a Select—

but not to be anything else. Why can't you understand that interstellar intrigue isn't your dish?"

"Interstellar . . . what're you talking about?" she demanded.

"Oh, climb down for a moment," he said wearily—and more youngly than he had said anything since leaving home. "William is your enemy. You understand that much; but you don't understand why or how, although you think you do. And neither do I," he confessed, "although I've got a notion. But the way for you to confound William isn't by playing his game. Play your own. Be the Select of Kultis. As the Select, you're untouchable."

"If," she said, "you've nothing more to say than that—"

"All right," he took a step toward her. "Listen, then. William was making an attempt to compromise you. Killien was his tool—"

"How dare you?" she erupted.

"How dare I?" he echoed wearily. "Is there anyone in this interstellar community of madmen and madwomen who doesn't know that phrase and use it to me on sight? I dare because it's the truth."

"Hugh," she stormed at him, "was a fine, honest man. A soldier and a gentleman! Not a . . . a—"

"Mercenary?" he inquired. "But he was."

"He was a career officer," she replied haughtily. "There's a difference."

"No difference." He shook his head. "But you wouldn't understand that. Mercenary isn't necessarily the dirty word somebody taught you it is. Never mind. Hugh Killien was worse than any name you might be mistaken enough to call me. He was a fool."

"Oh!" she whirled about.

He took her by one elbow and turned her around. She came about in shocked surprise. Somehow, it had never occurred to her to imagine how strong he was. Now, the sudden realization of her physical helplessness in his hands shocked her into abrupt and unusual silence.

"Listen to the truth, then," he said. "William dangled you like an expensive prize before Killien's eyes. He fed him full of the foolish hope that he could have *you*—the Select of Kultis. He made it possible for you to visit Hugh that night at Faith Will Succour—yes," he said, at her gasp, "I know about that. I saw you there with him. He also made sure Hugh would meet you, just as he made sure that the Orthodox soldiers would attack."

"I don't believe it—" she managed.

"Don't you be a fool, too," Donal said, roughly. "How else do you think an overwhelming force of Orthodox elite troops happened to move in on the encampment at just the proper time? What other men than fanatic Orthodox soldiery could be counted on to make sure none of the men in our unit escaped alive? There was supposed to be only one man to escape from that affair—Hugh Killien, who would be in a position then to make a hero's claim on you. You see how much your good opinion is worth?"

"Hugh wouldn't—"

"Hugh didn't," interrupted Donal. "As I said, he was a fool. A fool but a good soldier. Nothing more was needed for William. He knew Hugh would be fool enough to go and meet you, and good soldier enough not to throw his life away when he saw his command was destroyed. As I say, he would have come back alone—and a hero."

"But you saw through this!" she snapped. "What's your secret? A pipeline to the Orthodox camp?"

"Surely it was obvious from the situation; a command exposed, a commandant foolishly making a love-tryst in a battleground, that something like the attack was inevitable. I simply asked myself what kind of troops would be used and how they might be detected. Orthodox troops eat nothing but native herbs, cooked in the native fashion. The odor of their cooking permeates their clothing. Any veteran of a Harmony campaign would be able to recognize their presence the same way."

"If his nose was sensitive enough. If he knew where to look for them—"

"There was only one logical spot—"

"Anyway," she said coldly. "This is beside the point. The point is"—suddenly she fired up before him—"Hugh wasn't guilty. You said it yourself. He was, even according to you, only a fool! And you had him murdered!"

He sighed in weariness.

"The crime," he said, "for which Commandant Killien was executed was that of misleading his men and abandoning them in enemy territory. It was *that* he paid with his life for."

"Murderer!" she said. "Get out!"

"But," he said, staring bafflingly at her, "I've just explained."

"You've explained nothing," she said, coldly, and from a distance. "I've heard nothing but a mountain of lies, lies, lies, about a man whose boots you aren't fit to clean. Now, will you get out, or do I have to call the hotel guard?"

"You don't believe—?" He stared at her, wide-eyed.

"Get out." She turned her back on him. Like a man in a daze, he turned himself and walked blindly to the door and numbly out into the corridor. Still walking, he shook his head, like a person who finds himself in a bad dream and unable to wake up.

What was this curse upon him? She had not been lying—she was not capable of doing so successfully. She had really heard his explanation and —it had meant nothing to her. It was all so obvious, so plain—the machinations of William, the stupidity of Killien. And she had not seen it when Donal pointed it out to her. *She*, of all people, a Select of Kultis!

Why? Why? Why?

Scourged by the devils of self-doubt and loneliness, Donal moved off down the corridor, back in the direction of Galt's hotel.

TO BE CONTINUED

WE DIDN'T DO ANYTHING WRONG, HARDLY

BY ROGER KUYKENDALL

After all—they only borrowed it a little while, just to fix it—

Illustrated by Freas

MEAN, it isn't like we swiped anything. We maybe borrowed a couple of things, like. But, gee, we put everything back like we found it, pretty near.

Even like the compressor we got from Stinky Brinker that his old man wasn't using and I traded my outboard motor for, my old m . . . my father made me trade back. But it was like Skinny said . . . You know, Skinny. Skinny Thompson. He's the one you guys keep calling the boy genius, but shucks, he's no . . .

Well, yeah, it's like Skinny said, we didn't need an outboard motor, and we did need a compressor. You've got to have a compressor on a spaceship, everybody knows that. And that old compression chamber that old man . . . I mean *Mr.* Fields let us use didn't have a compressor.

Sure he said we could use it. Anyway he said we could play with it, and Skinny said we were going to make a spaceship out of it, and he said go ahead.

Well, no, he didn't say it exactly like that. I mean, well, like he didn't take it serious, sort of.

Anyway, it made a swell spaceship. It had four portholes on it and an air lock and real bunks in it and lots of room for all that stuff that Skinny put in there. But it didn't have a compressor and that's why . . .

What stuff? Oh, you know, the stuff that Skinny put in there. Like the radar he made out of a TV set and the antigravity and the atomic power plant he invented to run it all with.

He's awful smart, Skinny is, but he's not like what you think of a genius. You know, he's not all the time using big words, and he doesn't look like a genius. I mean, we call him Skinny 'cause he used to be—Skinny.

But he isn't now, I mean he's maybe small for his age, anyway he's smaller than me, and I'm the same age as he is. 'Course, I'm big for my age, so that doesn't mean much, does it?

Well, I guess Stinker Brinker started it. He's always riding Skinny about one thing or another, but Skinny never gets mad and it's a good thing for Stinker, too. I saw Skinny clean up on a bunch of ninth graders . . . Well, a couple of them anyway. They were saying . . . Well, I guess I won't tell you what they were saying. Anyway, Skinny used judo, I guess, because there wasn't much of a fight.

Anyway, Stinker said something about how he was going to be a rocket pilot when he grew up, and I told him that Skinny had told me that there wouldn't be any rockets, and that antigravity would be the thing as soon as it was invented. So Stinker said it never would be invented, and I said it would so, and he said it would not, and I said . . .

Well, if you're going to keep interrupting me, how can I . . .

All right. Anyway, Skinny broke into the argument and said that he could prove mathematically that antigravity was possible, and Stinky said suure he could, and Skinny said sure he could, and Stinky said suuure he could, like that. Honestly, is that any way to argue? I mean it sounds like two people agreeing, only Stinky keeps going suuure, like that, you know? And Stinky, what does he know about mathematics? He's had to take Remedial Arithmetic ever since . . .

No, I don't understand how the antigravity works. Skinny told me, but it was something about meson flow and stuff like that that I didn't understand. The atomic power plant made more sense.

Where did we get what uranium? Gee, no, we couldn't afford uranium, so Skinny invented a hydrogen fusion plant. Anyone can make hydrogen. You just take zinc and sulfuric acid and . . .

Deutrium? You mean like heavy hydrogen? No, Skinny said it would probably work better, but like I said, we couldn't afford anything fancy. As it was, Skinny had to pay five or six dollars for that special square tubing in the antigravity, and the plastic space helmets we had cost us

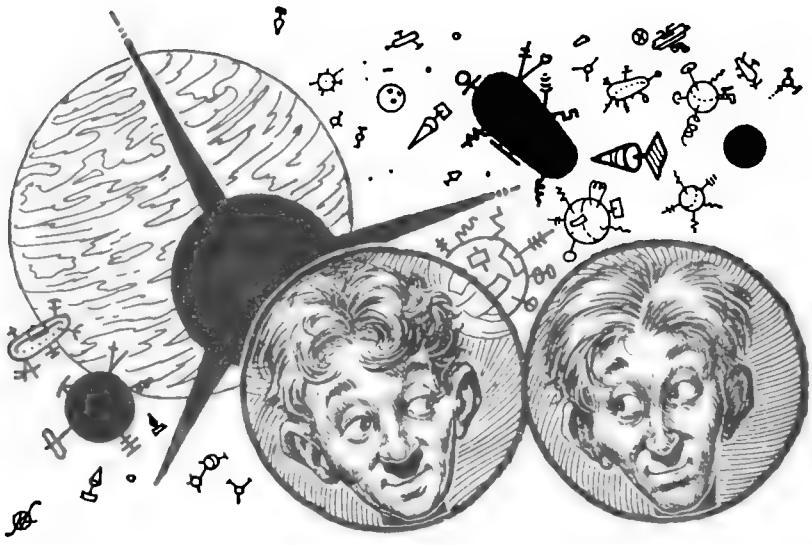
ninety-eight cents each. And it cost a dollar and a half for the special tube that Skinny needed to make the TV set into a radar.

You see, we didn't steal anything, really. It was mostly stuff that was just lying around. Like the TV set was up in my attic, and the old refrigerator that Skinny used the parts to make the atomic power plant out of from. And then, a lot of the stuff we already had. Like the skin diving suits we made into spacesuits and the vacuum pump that Skinny had already and the generator.

Sure, we did a lot of skin diving, but that was last summer. That's how we knew about old man Brinker's compressor that Stinky said was his and I traded my outboard motor for and had to trade back. And that's how we knew about Mr. Fields' old compression chamber, and all like that.

The rocket? Well, it works on the same principle as the atomic power plant, only it doesn't work except in a vacuum, hardly. Course you don't need much of a rocket when you have antigravity. Everyone knows that.

Well, anyway, that's how we built



the spaceship, and believe me, it wasn't easy. I mean with Stinky all the time bothering us and laughing at us. And I had to do a lot of lawn mowing to get money for the square tubing for the antigravity and the special tube for the radar, and my space helmet.

Stinky called the space helmets kid stuff. He was always saying things

like say hello to the folks on Mars for me, and bring back a bottle of canal number five, and all like that, you know. Course, they did look like kid stuff, I guess. We bought them at the five-and-dime, and they were meant for kids. Of course when Skinny got through with them, they worked fine.

We tested them in the air lock of the compression chamber when we got the compressor in. They tested out pretty good for a half-hour, then we tried them on in there. Well, it wasn't a complete vacuum, just twenty-seven inches of mercury, but that was O.K. for a test.

So anyway, we got ready to take off. Stinky was there to watch, of course. He was saying things like, farewell, O brave pioneers, and stuff like that. I mean it was enough to make you sick.

He was standing there laughing and singing something like up in the air junior birdmen, but when we closed the air-lock door, we couldn't hear him. Skinny started up the atomic power plant, and we could see Stinky laughing fit to kill. It takes a couple of minutes for it to warm up, you know. So Stinky started throwing rocks to attract our attention, and Skinny was scared that he'd crack a porthole or something, so he threw the switch and we took off.

Boy, you should of seen Stinky's face. I mean you really should of seen it. One minute he was laughing you know, and the next minute he looked like a goldfish. I guess he always did look like a goldfish, but I mean even more like, then. And he was getting smaller and smaller, because we had taken off.

We were gone pretty near six hours, and it's a good thing my Mom made me take a lunch. Sure, I told her where we were going. Well . . . anyway I told her we were maybe going to fly around the world in Skinny and my spaceship, or maybe go down to Carson's pond. And she made me take a lunch and made me promise I wouldn't go swimming alone, and I sure didn't.

But we did go around the world three or four times. I lost count. Anyway that's when we saw the satellite—on radar. So Skinny pulled the spaceship over to it and we got out and looked at it. The spacesuits worked fine, too.

Gosh no, we didn't steal it or anything. Like Skinny said, it was just a menace to navigation, and the batteries were dead, and it wasn't working right anyway. So we tied it onto the spaceship and took it home. No, we had to tie it on top, it was too big to take inside with the antennas sticking out. Course, we found out how to fold them later.

Well, anyway the next day, the Russians started squawking about a capitalist plot, and someone had swiped their satellite. Gee, I mean with all the satellites up there, who'd miss just one?

So I got worried that they'd find out that we took it. Course, I didn't need to worry, because Stinky told

them all right, just like a tattletale.

So anyway, after Skinny got the batteries recharged, we put it back. And then when we landed there were hundreds of people standing around, and Mr. Anderson from the State Department. I guess you know the rest.

Except maybe Mr. Anderson started laughing when we told him, and he said it was the best joke on the Russians he ever heard.

I guess it is when you think about it. I mean, the Russians complaining about somebody swiping their satellite and then the State Department answering a couple of kids borrowed it, but they put it back.

One thing that bothers me though, we didn't put it back exactly the way we found it. But I guess it doesn't matter. You see, when we put it back, we goofed a little. I mean, we put it back in the same orbit, more or less, but we got it going in the wrong direction.

THE END

IN TIMES TO COME

Ralph Williams—who's an Alaskan himself—has the lead novel next time; "Cat and Mouse." Williams has a habit of coming up with some highly interesting side-angle viewpoints on the abilities of a really sharp professional—like his sales manager in the department store suddenly faced with the matter-duplicator a while back, and doing nicely, thank you! This time it's a professional hunter-trapper in the Alaskan woods who finds someone has opened a hole right near his cabin . . . a hole into another world. The other world has a highly carnivorous sort of entity, and very thoroughly alien, combining the less-desirable features of a nest of fire ants, a kodiak bear, and a pack of weasles with poison fangs . . .

Obviously nothing for a lone hunter-trapper to tangle with! It has a magnificent set of highly-evolved instincts; the hunter has only his years of experience in the woods. Poor guy . . .

THE EDITOR.

Just because a man can do something others can't does not, unfortunately, mean he knows how to do it. One man could eat the native fruit and live... but how?

CUM GRANO

ND that," said Colonel Fennister glumly, "appears to be that."

The pile of glowing coals that had been Storage Shed Number One was still sending up tongues of flame, but they were nothing compared with what they'd been half an hour before.

"The smoke smells good, anyway," said Major Grodski, sniffing appreciatively.

The colonel turned his head and glowered at his adjutant.

"There are times, Grodski, when your sense of humor is out of place."

"Yes, sir," said the major, still sniffing. "Funny thing for lightning to do, though. Sort of a dirty trick, you might say."

"*You* might," growled the colonel. He was a short, rather roundish man, who was forever thankful that the Twentieth Century predictions of skin-tight uniforms for the Space Service had never come true. He had round, pleasant, blue eyes, a rather largish nose, and a rumbling basso voice that was a little surprising the first time you heard it, but which seemed to fit perfectly after you knew him better.

Right at the moment, he was filing data and recommendations in his memory, where they would be instantly available for use when he needed them. Not in a physical file, but in his own mind.

All right, Colonel Fennister, he thought to himself, *just what does this mean—to me? And to the rest?*

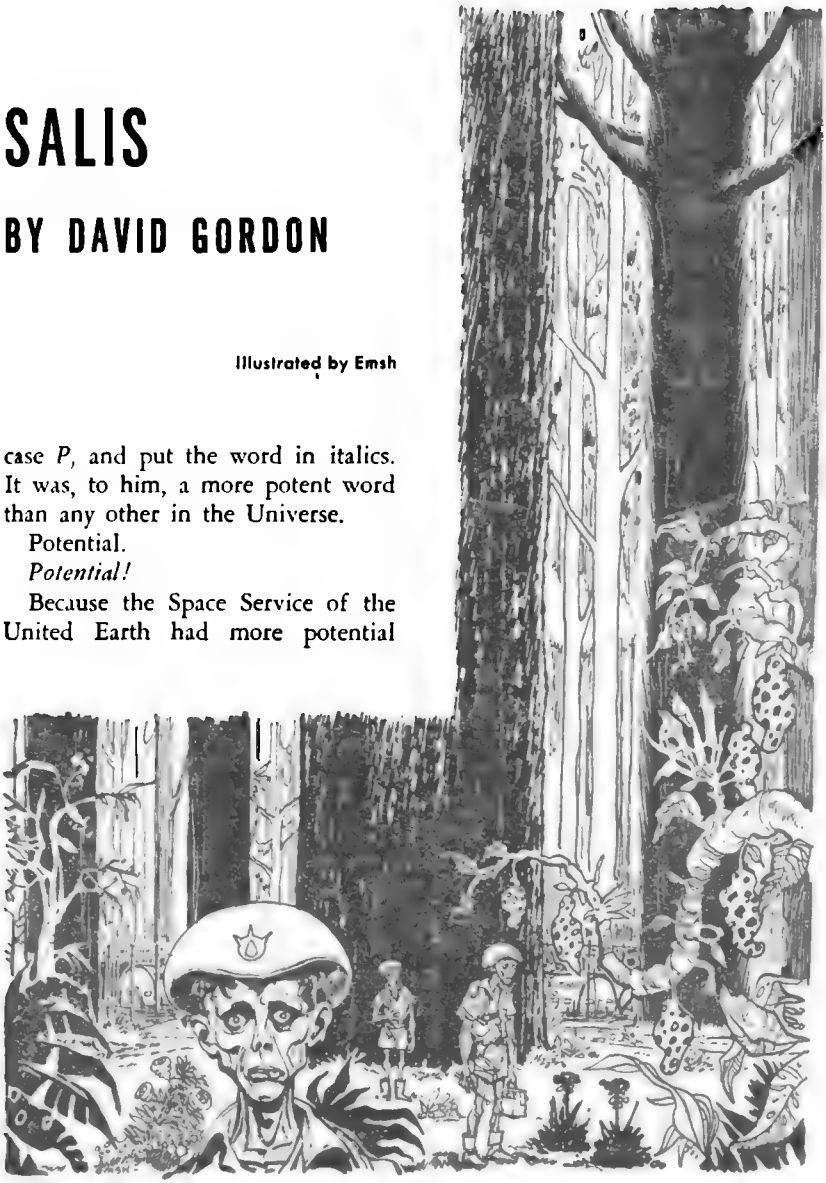
The Space Service was not old. Unlike the Air Service, the Land Service, or the Sea Service, it did not have centuries or tradition behind it. But it had something else. It had something that none of the other Services had—*Potential.*

In his own mind, Colonel Fennister spelled the word with an upper

SALIS

BY DAVID GORDON

Illustrated by Emsh



case *P*, and put the word in italics. It was, to him, a more potent word than any other in the Universe.

Potential.

Potential!

Because the Space Service of the United Earth had more potential

than any other Service on Earth. How many seas were there for the Sea Service to sail? How much land could the Land Service march over? How many atmospheres were there for the Air Service to conquer?

Not for any of those questions was there an accurate answer, but for each of those questions, the answer had a limit. But how much space was there for the Space Service to conquer?

Colonel Fennister was not a proud man. He was not an arrogant man. But he *did* have a sense of destiny; he *did* have a feeling that the human race was going somewhere, and he did not intend that that feeling should become totally lost to humanity.

Potential.

Definition: *Potential; that which has a possibility of coming into existence.*

No, more than that. That which has a—

He jerked his mind away suddenly from the thoughts which had crowded into his forebrain.

What were the chances that the first expedition to Alphegar IV would succeed? What were the chances that it would fail?

And (Fennister grinned grimly to himself) what good did it do to calculate chances after the event had happened?

Surrounding the compound had been a double-ply, heavy-gauge, woven fence. It was guaranteed to be able to stop a diplodocus in full charge; the electric potential (*potential!* That word again!) great enough to carbonize anything smaller than a blue whale. No animal on Alphegar IV could possibly get through it.

And none had.

Trouble was, no one had thought of being attacked by something immensely greater than a blue whale, especially since there was no animal larger than a small rhino on the whole planet. Who, after all, could have expected an attack by a blind, uncaring colossus—a monster that had already been dying before it made its attack?

Because no one had thought of the forest.

The fact that the atmospheric potential—the voltage and even the amperage difference between the low-hanging clouds and the ground below—was immensely greater than that of Earth, that had already been determined. But the compound and the defenses surrounding it had already been compensated for that factor.

Who could have thought that a single lightning stroke through one of the tremendous, twelve-hundred-foot trees that surrounded the compound could have felled it? Who could have predicted that it would topple toward the compound itself?

That it would have been burning—that was something that could have been guaranteed, had the idea of the original toppling been considered. Especially after the gigantic wooden life-thing had smashed across the double-ply fence, thereby adding

man-made energy to its already powerful bulk and blazing surface.

But—that it would have fallen across Storage Shed Number One? Was *that* predictable?

Fennister shook his head slowly. No. It wasn't. The accident was simply that—an accident. No one was to blame; no one was responsible.

Except Fennister. *He* was responsible. Not for the accident, but for the personnel of the expedition. He was the Military Officer; he was the Man In Charge of Fending Off Attack.

And he had failed.

Because that huge, blazing, stricken tree had toppled majestically down from the sky, crashing through its smaller brethren, to come to rest on Storage Shed Number One, thereby totally destroying the majority of the food supply.

There were eighty-five men on Alphegar IV, and they would have to wait another six months before the relief ship came.

And they didn't have food enough to make it, now that their reserve had been destroyed.

Fennister growled something under his breath.

"What?" asked Major Grodski, rather surprised at his superior's tone.

"I said: 'Water, water, everywhere —', that's what I said."

Major Grodski looked around him at the lush forest which surrounded the double-ply fence of the compound.

"Yeah," he said. " 'Nor any drop to drink.' But I wish one of those boards had shrunk—say, maybe, a couple hundred feet."

"I'm going back to my quarters," Fennister said. "I'll be checking with the civilian personnel. Let me know the total damage, will you?"

The major nodded. "I'll let you know, sir. Don't expect good news."

"I won't," said Colonel Fennister, as he turned.

The colonel let his plump bulk sag forward in his chair, and he covered his hands with his eyes. "I can imagine all kinds of catastrophies," he said, with a kind of hysterical glumness, "but this has them all beat."

Dr. Pilar stroked his, short, gray, carefully cultivated beard. "I'm afraid I don't understand. We could all have been killed."

The colonel peeked one out from between the first and second fingers of his right hand. "You think starving to death is cleaner than fire?"

Pilar shook his head slowly. "Of course not. I'm just not certain that we'll all die—that's all."

Colonel Fennister dropped his hands to the surface of his metal desk. "I see," he said dryly. "Where there's life, there's hope. Right? All right, I agree with you." He waved his hand around, in an all-encompassing gesture. "Somewhere out there, we may find food. But don't you see that this puts us in the Siege Position?"

Dr. Francis Pilar frowned. His thick salt-and-pepper brows rumpled

in a look of puzzlement. "Siege Position? I'm afraid—"

Fennister gestured with one hand and leaned back in his chair, looking at the scientist across from him. "I'm sorry," he said. "I've let my humiliation get the better of me." He clipped his upper lip between his teeth until his lower incisors were brushed by his crisp, military mustache, and held it there for a moment before he spoke.

"The Siege Position is one that no military commander of any cerebral magnitude whatever allows himself to get into. It is as old as Mankind, and a great deal stupider. It is the position of a beleaguered group which lacks one simple essential to keep them alive until help comes.

"A fighting outfit, suppose, has enough ammunition to stand off two more attacks; but they know that there will be reinforcements within four days. Unfortunately, the enemy can attack *more than twice* before help comes. Help will come too late.

"Or, it could be that they have enough water to last a week, but help won't come for a month.

"You follow me, I'm sure. The point, in so far as it concerns us, is that we have food for about a month, but we won't get help before six months have passed. We know help is coming, but we won't be alive to see it."

Then his eyes lit up in a kind of half hope. "Unless the native flora—"

But even before he finished, he could see the look in Dr. Pilar's eyes.

Broderick MacNeil was a sick man. The medical officers of the Space Service did not agree with him *in toto,* but MacNeil was in a position to know more about his own state of health than the doctors, because it was, after all, he himself who was sick.

Rarely, of course, did he draw the attention of the medical officers to his ever-fluctuating assortment of aches, pains, signs, symptoms, malaises, and malfunctions. After all, it wouldn't do for him to be released from the Service on a Medical Discharge. No, he would suffer in silence for the sake of his chosen career—which, apparently, was to be a permanent Spaceman 2nd Class.

Broderick MacNeil had never seen his medical record, and therefore did not know that, aside from mention of the normal slight defects which every human body possesses, the only note on the records was one which said: "Slight tendency toward hypochondria, compensated for by tendency to immerse self in job at hand. According to psych tests, he can competently handle positions up to Enlisted Space Officer 3rd Class, but positions of ESO/2 and above should be carefully considered. (See Psych Rept. Intelligence Sectn.)"

But, if MacNeil did not know what the medics thought of him, neither did the medics know what he thought of them. Nor did they know that MacNeil carried a secret supply of his own personal palliatives, purgatives and poly-purpose pills. He kept them carefully conceal-

ed in a small section of his space locker, and had labeled them all as various vitamin mixtures, which made them seem perfectly legal, and which was not *too* dishonest, since many of them *were* vitamins.

On the morning after the fire, he heaved his well-muscled bulk out of bed and scratched his scalp through the close-cropped brown hair that covered his squarish skull. He did not feel well, and that was a fact. Of course, he had been up half the night fighting the blaze, and that hadn't helped any. He fancied he had a bit of a headache, and his nerves seemed a little jangled. His insides were probably in their usual balky state. He sighed, wished he were in better health, and glanced around at the other members of the company as they rose grumpily from their beds.

He sighed again, opened his locker, took out his depilator, and ran it quickly over his face. Then, from his assortment of bottles, he began picking over his morning dosage. Vitamins, of course; got to keep plenty of vitamins in the system, or it goes all to pot on you. A, B_1, B_2, B_{12}, C, . . . and on down the alphabet and past it to A-G. All-purpose mineral capsules, presumably containing every element useful to the human body and possibly a couple that weren't. Two APC capsules. (Aspirin-Phenacitin-Caffiene. He liked the way those words sounded; very medicinal.) A milk-of-magnesia tablet, just in case. A couple of patent-mixture pills that were supposed to increase the bile flow. (MacNeil wasn't quite sure what bile was, but he *was* quite sure that its increased flow would work wonders within.) A largish tablet of sodium bicarbonate to combat excess gastric acidity—obviously a *horrible* condition, whatever it was. He topped it all off with a football-shaped capsule containing Liquid Glandolene—*"Guards the system against glandular imbalance!"* —and felt himself ready to face the day. At least, until breakfast.

He slipped several bottles into his belt-pak after he had put on his field uniform, so that he could get at them at mealtimes, and trudged out toward the mess hall to the meager breakfast that awaited him.

"Specifically," said Colonel Fennister, "what we want to know is: What are our chances of staying alive until the relief ship comes?"

He and most of the other officers were still groggy-eyed, having had too much to do to even get an hour's sleep the night before. Only the phlegmatic Major Grodski looked normal; his eyes were always about half closed.

Captains Jones and Bellwether, in charge of A and B Companies respectively, and their lieutenants, Mawkey and Yutang, all looked grim and irritable.

The civilian components of the policy group looked not one whit better. Dr. Pilar had been worriedly rubbing at his face, so that his normally neat beard had begun to take on the appearance of a ruptured mo-

hair sofa; Dr. Petrelli, the lean, waspish chemist, was nervously trimming his fingernails with his teeth; and the M.D., Dr. Smathers, had a hangdog expression on his pudgy face and had begun drumming his fingers in a stacatto tattoo on his round belly.

Dr. Pilar tapped a stack of papers that lay before him on the long table at which they were all seated. "I have Major Grodski's report on the remaining food. There is not enough for all of us to live, even on the most extended rations. Only the strongest will survive."

Colonel Fennister scowled. "You mean to imply that we'll be fighting over the food like animals before this is over? The discipline of the Space Service—"

His voice was angry, but Dr. Pilar cut him off. "It may come to fighting, colonel, but, even if perfect discipline is maintained, what I say will still be true. Some will die early, leaving more food for the remaining men. It has been a long time since anything like this has happened on Earth, but it is not unknown in the Space Service annals."

The colonel pursed his lips and kept his silence. He knew that what the biologist said was true.

"The trouble is," said Petrelli snappishly, "that we are starving in the midst of plenty. We are like men marooned in the middle of an ocean with no water; the water is there, but it's undrinkable."

"That's what I wanted to get at," said Colonel Fennister. "Is there any chance at all that we'll find an edible plant or animal on this planet?"

The three scientists said nothing, as if each were waiting for one of the others to speak.

All life thus far found in the galaxy had had a carbon-hydrogen-oxygen base. Nobody'd yet found any silicon based life, although a good many organisms used the element. No one yet had found a planet with a halogen atmosphere, and, although there might be weird forms of life at the bottom of the soupy atmospheres of the methane-ammonia giants, no brave soul had ever gone down to see—at least, not on purpose, and no information had ever come back.

But such esoteric combinations are not at all necessary for the postulation of wildly variant life forms. Earth itself was prolific in its variations; Earthlike planets were equally inventive. Carbon, hydrogen, and oxygen, plus varying proportions of phosphorpus, potassium, iodine, nitrogen, sulfur, calcium, iron, magnesium, manganese, and strontium, plus a smattering of trace elements, seem to be able to cook up all kinds of life under the strangest imaginable conditions.

Alphegar IV was no different than any other Earth-type planet in that respect. It had a plant-dominated ecology; the land areas were covered with gigantic trees that could best be described as crosses between a California sequoia and a cycad, although such a description would have made

a botanist sneer and throw up his hands. There were enough smaller animals to keep the oxygen-carbon-dioxide cycle nicely balanced, but the animals had not evolved anything larger than a rat, for some reason. Of course, the sea had evolved some pretty huge monsters, but the camp of the expedition was located a long way from the sea, so there was no worry from that quarter.

At the time, however, the members of the expedition didn't know any of that information for sure. The probe teams had made spot checks and taken random samples, but it was up to the First Analytical Expedition to make sure of everything.

And this much they had discovered: The plants of Alphegar IV had a nasty habit of killing test animals.

"Of course," said Dr. Pilar, "we haven't tested every plant yet. We may come across something."

"What is it that kills the animals?" asked young Captain Bellwether.

"Poison," said Major Grodski.

Pilar ignored him. "Different things. Most of them we haven't been able to check thoroughly. We found some vines that were heavily laced with cyanide, and there were recognizable alkaloids in several of the shrubs, but most of them are not that direct. Like Earth plants, they vary from family to family; the deadly nightshade is related to both the tobacco plant and the tomato."

He paused a moment, scratching thoughtfully at his beard.

"Tell you what; let's go over to the lab, and I'll show you what we've found so far."

Colonel Fennister nodded. He was a military man, and he wasn't too sure that the scientists' explanations would be very clear, but if there was information to be had, he might as well make the most of it.

SM/2 Broderick MacNeil kept a firm grip on his blast rifle and looked around at the surrounding jungle, meanwhile thanking whatever gods there were that he hadn't been put on the fence-mending detail. Not that he objected violently to work, but he preferred to be out here in the forest just now. Breakfast hadn't been exactly filling, and he was hungry.

Besides, this was his pet detail, and he liked it. He had been going out with the technicians ever since the base had been finished, a couple of weeks before, and he was used to the work. The biotechnicians came out to gather specimens, and it was his job, along with four others, to guard them—make sure that no wild animal got them while they were going about their duties. It was a simple job, and one well suited to MacNeil's capacities.

He kept an eye on the technicians. They were working on a bush of some kind that had little thorny-looking nuts on it, clipping bits off here and there. He wasn't at all sure what they did with all those little pieces and bits, but that was none of his business, anyway. Let the brains take

care of that stuff; his job was to make sure they weren't interrupted in whatever it was they were doing. After watching the three technicians in total incomprehension for a minute or so, he turned his attention to the surrounding forest. But he was looking for a plant, not an animal.

And he finally saw what he was looking for.

The technicians paid him no attention. They rarely did. They had their job, and he had his. Of course, he didn't want to be caught breaking regulations, but he knew how to avoid that catastrophe. He walked casually toward the tree, as though he were only slightly interested in it.

He didn't know what the name of the tree was. He'd asked a technician once, and the tech had said that the tree didn't have any name yet. Personally, MacNeil thought it was silly for a thing not to have a name. Hell, *everything* had a name.

But, if they didn't want to tell him what it was, that was all right with him, too. He called it a banana-pear tree.

Because that's what the fruit reminded him of.

The fruit that hung from the tree were six or eight inches long, fat in the middle, and tapering at both ends. The skin was a pale charteuse in color, with heliotrope spots.

MacNeil remembered the first time he'd seen one, the time he'd asked the tech what its name was. The tech had been picking some of them and putting them into plastic bags, and the faint spark of MacNeil's dim curiosity had been brought to feebly flickering life.

"Hey, Doc," he'd said, "whatcha gonna do with them things?"

"Take 'em to the lab," said the technician, engrossed in his work.

MacNeil had digested that carefully. "Yeah?" he'd said at last. "What for?"

The technician had sighed and popped another fruit into a bag. He had attempted to explain things to Broderick MacNeil before and given it up as a bad job. "We just feed 'em to the monkeys, Mac, that's all."

"Oh," said Broderick MacNeil.

Well, that made sense, anyhow. Monkeys got to eat *something,* don't they? Sure. And he had gazed at the fruit in interest.

Fresh fruit was something MacNeil missed. He'd heard that fresh fruit was necessary for health, and on Earth he'd always made sure that he had plenty of it. He didn't want to get sick. But they didn't ship fresh fruit on an interstellar expedition, and MacNeil had felt vaguely apprehensive about the lack.

Now, however, his problems were solved. He knew that it was strictly against regulations to eat native fruit until the brass said so, but that didn't worry him too much. He'd heard somewhere that a man can eat anything a monkey can, so he wasn't worried about it. So he'd tried one. It tasted fine, something like a pear and something like a banana, and different from either. It was just fine.

Since then, he'd managed to eat a couple every day, so's to get his fresh fruit. It kept him healthy. Today, though, he needed more than just health; he was hungry, and the banana-pears looked singularly tempting.

When he reached the tree, he turned casually around to see if any of the others were watching. They weren't, but he kept his eye on them while he picked several of the fruit. Then he turned carefully around, and, with his back to the others, masking his movements with his own body, he began to munch contentedly on the crisp flesh of the banana-pears.

"Now, take this one, for instance," said Dr. Pilar. He was holding up a native fruit. It bulged in the middle, and had a chartreuse rind with heliotrope spots on it. "It's a very good example of exactly what we're up against. Ever since we discovered this particular fruit, we've been interested in it because the analyses show that it should be an excellent source of basic food elements. Presumably, it even tastes good; our monkeys seemed to like it."

"What's the matter with it, then?" asked Major Grodski, eying the fruit with sleepy curiosity.

Dr. Pilar gave the thing a wry look and put it back in the specimen bag.

"Except for the fact that it has killed every one of our test specimens, we don't know what's wrong with it."

Colonel Fennister looked around the laboratory at the cages full of chittering animals—monkeys, white mice, rats, guinea pigs, hamsters, and the others. Then he looked back at the scientist. "Don't you know what killed them?"

Pilar didn't answer; instead, he glanced at Dr. Smathers, the physician.

Smathers steepled his fingers over his abdomen and rubbed his fingertips together. "We're not sure. Thus far, it looks as though death was caused by oxygen starvation in the tissues."

"Some kind of anemia?" hazarded the colonel.

Smathers frowned. "The end results are similar, but there is no drop in the hemoglobin—in fact, it seems to rise a little. We're still investigating that. We haven't got all the answers yet, by any means, but since we don't quite know what to look for, we're rather hampered."

The colonel nodded slowly. "Lack of equipment?"

"Pretty much so," admitted Dr. Smathers. "Remember, we're just here for preliminary investigation. When the ship brings in more men and equipment—"

His voice trailed off. Very likely, when the ship returned, it would find an empty base. The first-string team simply wasn't set up for exhaustive work; its job was to survey the field in general and mark out the problems for the complete team to solve.

Establishing the base had been of primary importance, and that was the sort of equipment that had been carried on the ship. That—and food. The scientists had only the barest essentials to work with; they had no electron microscopes or any of the other complex instruments necessary for exhaustive biochemical work.

Now that they were engaged in a fight for survival, they felt like a gang of midgets attacking a herd of water-buffalo with penknives. Even if they won the battle, the mortality rate would be high, and their chances of winning were pretty small.

The Space Service officers and the scientists discussed the problem for over an hour, but they came to no promising conclusion.

At last, Colonel Fennister said: "Very well, Dr. Pilar; we'll have to leave the food supply problem in your hands. Meanwhile, I'll try to keep order here in the camp."

SM/2 Broderick MacNeil may not have had a top-level grade of intelligence, but by the end of the second week, his conscience was nagging him, and he was beginning to wonder who was goofing and why. After much thinking—if we may so refer to MacNeil's painful cerebral processes—he decided to ask a few cautious questions.

Going without food tends to make for mental fogginess, snarling tempers, and general physical lassitude in any group of men. And, while

quarter rations were not quite starvation meals, they closely approached it. It was fortunate, therefore, that MacNeil decided to approach Dr. Pilar.

Dr. Petrelli's temper, waspish by nature, had become positively virulent in the two weeks that had passed since the destruction of the major food cache. Dr. Smathers was losing weight from his excess, but his heretofore pampered stomach was voicelessly screaming along his nerve passages, and his fingers had become shaky, which is unnerving in a surgeon, so his temper was no better than Petrelli's.

Pilar, of course, was no better fed, but he was calmer than either of the others by disposition, and his lean frame didn't use as much energy. So, when the big hulking spaceman appeared at the door of his office with his cap in his hands, he was inclined to be less brusque than he might have been.

"Yes? What is it?" he asked. He had been correlating notes in his journal with the thought in the back of his mind that he would never finish it, but he felt that a small respite might be relaxing.

MacNeil came in and looked nervously around at the plain walls of the pre-fab plastic dome-hut as though seeking consolation from them. Then he straightened himself in the approved military manner and looked at the doctor.

"You Dr. Piller? Sir?"

"Pi*lar,*" said the scientist in correction. "If you're looking for the medic, you'll want Dr. Smathers, over in G Section."

"Oh, yessir," said MacNeil quickly, "I know that. But I ain't sick." He didn't feel *that* sick, anyway. "I'm Spaceman Second MacNeil, sir, from B Company. Could I ask you something, sir?"

Pilar sighed a little, then smiled. "Go ahead, spaceman."

MacNeil wondered if maybe he'd ought to ask the doctor about his sacroiliac pains, then decided against it. This wasn't the time for it. "Well, about the food. Uh . . . Doc, can men eat monkey food all right?"

Pilar smiled. "Yes. What food there is left for the monkeys has already been sent to the men's mess hall." He didn't add that the lab animals would be the next to go. Quick-frozen, they might help eke out the dwindling food supply, but it would be better not to let the men know what they were eating for a while. When they got hungry enough, they wouldn't care.

But MacNeil was plainly puzzled by Pilar's answer. He decided to approach the stuff as obliquely as he knew how.

"Doc, sir, if I . . . I uh . . . well —" He took the bit in his teeth and plunged ahead. "If I done something against the regulations, would you have to report me to Captain Bellwether?"

Dr. Pilar leaned back in his chair and looked at the big man with interest. "Well," he said carefully, "that would all depend on what it was. If it was something really . . .

ah . . . dangerous to the welfare of the expedition, I'd have to say something about it, I suppose, but I'm not a military officer, and minor infractions don't concern me."

MacNeil absorbed that "Well, sir, this ain't much, really—I ate something I shouldn't of."

Pilar drew down his brows. "Stealing food, I'm afraid, would be a major offense, under the circumstances."

MacNeil looked both startled and insulted. "Oh, nossir! I never swiped no food! In fact, I've been givin' my chow to my buddies."

Pilar's brows lifted. He suddenly realized that the man before him looked in exceptionally good health for one who had been on a marginal diet for two weeks. "Then what *have* you been living on?"

"The monkey food, sir."

"Monkey food?"

"Yessir. Them greenish things with the purple spots. You know—them fruits you feed the monkeys on."

Pilar looked at MacNeil goggle-eyed for a full thirty seconds before he burst into action.

"No, of course I won't punish him," said Colonel Fennister. "Something will have to go on the record, naturally, but I'll just restrict him to barracks for thirty days and then recommend him for light duty. But are you *sure?"*

"I'm sure," said Pilar, half in wonder.

Fennister glanced over at Dr. Smathers, now noticeably thinner in the face. The medic was looking over MacNeil's record. "But if that fruit kills monkeys and rats and guinea pigs, how can a *man* eat it?"

"Animals differ," said Smathers, without taking his eyes off the record sheets. He didn't amplify the statement.

The colonel looked back at Pilar.

"That's the trouble with test animals," Dr. Pilar said, ruffling his gray beard with a fingertip. "You take a rat, for instance. A rat can live on a diet that would kill a monkey. If there's no vitamin A in the diet, the monkey dies, but the rat makes his own vitamin A; he doesn't need to import it, you might say, since he can synthesize it in his own body. But a monkey can't.

"That's just one example. There are hundreds that we know of and God alone knows how many that we haven't found yet."

Fennister settled his own body more comfortably in the chair and scratched his head thoughtfully. "Then, even after a piece of alien vegetation has passed all the animal tests, you still couldn't be sure it wouldn't kill a human?"

"That's right. That's why we ask for volunteers. But we haven't lost a man so far. Sometimes a volunteer will get pretty sick, but if a food passes all the other tests, you can usually depend on its not killing a human being."

"I gather that this is a pretty unusual case, then?"

Pilar frowned. "As far as I know,

yes. But if something kills all the test animals, we don't ask for humans to try it out. We assume the worst and forget it." He looked musingly at the wall. "I wonder how many edible plants we've by-passed that way?" he asked softly, half to himself.

"What are you going to do next?" the colonel asked. "My men are getting hungry."

Smathers looked up from the report in alarm, and Pilar had a similar expression on his face.

"For Pete's sake," said Smathers, "don't tell anyone—not *anyone*—about this, just yet. We don't want all your men rushing out in the forest to gobble down those things until we are more sure of them. Give us a few more days at least."

The colonel patted the air with a hand. "Don't worry. I'll wait until you give me the go-ahead. But I'll want to know your plans."

Pilar pursed his lips for a moment before he spoke. "We'll check up on MacNeil for another forty-eight hours. We'd like to have him transferred over here, so that we can keep him in isolation. We'll feed him more of the . . . uh . . . what'd he call 'em, Smathers?"

"Banana-pears."

"We'll feed him more banana-pears, and keep checking. If he is still in good shape, we'll ask for volunteers."

"Good enough," said the colonel. "I'll keep in touch."

On the morning of the third day in isolation, MacNeil rose early, as usual, gulped down his normal assortment of vitamins, added a couple of aspirin tablets, and took a dose of Epsom salts for good measure. Then he yawned and leaned back to wait for breakfast. He was certainly getting enough fresh fruit, that was certain. He'd begun to worry about whether he was getting a balanced diet—he'd heard that a balanced diet was very important—but he figured that the doctors knew what they were doing. Leave it up to them.

He'd been probed and needled and tested plenty in the last couple of days, but he didn't mind it. It gave him a feeling of confidence to know that the doctors were taking care of him. Maybe he ought to tell them about his various troubles; they all seemed like nice guys. On the other hand, it wouldn't do to get booted out of the Service. He'd think it over for a while.

He settled back to doze a little while he waited for his breakfast to be served. Sure was nice to be taken care of.

Later on that same day, Dr. Pilar put out a call for volunteers. He still said nothing about MacNeil; he simply asked the colonel to say that it had been eaten successfully by a test animal.

The volunteers ate their banana-pears for lunch, approaching them warily at first, but soon polishing them off with gusto, proclaiming them to have a fine taste.

The next morning, they felt weak and listless.

Thirty-six hours later, they were dead.

"Oxygen starvation," said Smathers angrily, when he had completed the autopsies.

Broderick MacNeil munched pleasantly on a banana-pear that evening, happily unaware that three of his buddies had died of eating that selfsame fruit.

The chemist, Dr. Petrelli, looked at the fruit in his hand, snarled suddenly, and smashed it to the floor. Its skin burst, splattering pulp all over the gray plastic.

"It looks," he said in a high, savage voice, "as if that hulking idiot will be the only one left alive when the ship returns!" He turned to look at Smathers, who was peering through a binocular microscope. "Smathers, what makes him different?"

"How do I know?" growled Dr. Smathers still peering. "There's something different about him, that's all."

Petrelli forcibly restrained his temper. "Very funny," he snapped.

"Not funny at all," Smathers snapped back. "No two human beings are identical—you know that." He lifted his gaze from the eyepiece of the instrument and settled in on the chemist. "He's got AB blood type, for one thing, which none of the volunteers had. Is that what makes him immune to whatever poison is in those things? I don't know.

"Were the other three allergic to some protein substance in the fruit, while MacNeil isn't? I don't know.

"Do his digestive processes destroy the poison? I don't know.

"It's got something to do with his blood, I think, but I can't even be sure of that. The leucocytes are a little high, the red cell count is a little low, the hemoglobin shows a little high on the colorimeter, but none of 'em seems enough to do any harm.

"It might be an enzyme that destroys the ability of the cells to utilize oxygen. It might be *anything!*"

His eyes narrowed then, as he looked at the chemist. "After all, why haven't you isolated the stuff from the fruit?"

"There's no clue as to what to look for," said Petrelli, somewhat less bitingly. "The poison might be present in microscopic amounts. Do you know how much botulin toxin it takes to kill a man? A fraction of a milligram!"

Smathers looked as though he were about to quote the minimum dosage, so Petrelli charged on: "If you think anyone could isolate an unknown organic compound out of a—"

"Gentlemen! *Please!*" said Dr. Pilar sharply. "I realize that this is a strain, but bickering won't help. What about your latest tests on MacNeil, Dr. Smathers?"

"As far as I can tell, he's in fine health. And I can't understand why," said the physician in a restrained voice.

Pilar tapped one of the report sheets. "You mean the vitamins?"

"I mean the vitamins," said Smath-

ers. "According to Dr. Petrelli, the fruits contain neither A nor B_1. After living solely on them for four weeks now, he should be beginning to show some deficiencies—but he's not."

"No signs?" queried Dr. Pilar. "No symptoms?"

"No signs—at least no abnormal ones. He's not getting enough protein, but, then, none of us is." He made a bitter face. "But he has plenty of symptoms."

Dr. Petrelli raised a thin eyebrow. "What's the difference between a sign and a symptom?"

"A sign," said Smathers testily, "is something that can be objectively checked by another person than the patient. Lesions, swellings, inflammations, erratic heartbeat, and so on. A symptom is a subjective feeling of the patient, like aches, pains, nausea, dizziness, or spots before the eyes.

"And MacNeil is beginning to get all kinds of symptoms. Trouble is, he's got a record of hypochondria, and I can't tell which of the symptoms are psychosomatic and which, if any, might be caused by the fruit."

"The trouble is," said Petrelli, "that we have an unidentifiable disease caused by an unidentifiable agent which is checked by an unidentifiable something in MacNeil. And we have neither the time nor the equipment to find out. This is a job that a fully equipped research lab might take a couple of years to solve."

"We can keep trying," said Pilar, "and hope we stumble across it by accident."

Petrelli nodded and picked up the beaker he'd been heating over an electric plate. He added a chelating agent which, if there were any nickel present, would sequester the nickel ions and bring them out of solution as a brick-red precipitate.

Smathers scowled and bent over his microscope to count more leucocytes.

Pilar pushed his notes aside and went over to check his agar plates in the constant-temperature box.

The technicians who had been listening to the conversation with ears wide open went back to their various duties.

And all of them tried in vain to fight down the hunger pangs that were corroding at their insides.

Broderick MacNeil lay in his bed and felt pleasantly ill. He treasured each one of his various symptoms; each pain and ache was just right. He hadn't been so comfortable in years. It really felt fine to have all those doctors fussing over him. They got snappy and irritable once in a while, but then, all them brainy people had a tendency to do that. He wondered how the rest of the boys were doing on their diet of banana-pears. Too bad they weren't getting any special treatment.

MacNeil had decided just that morning that he'd leave the whole state of his health in the hands of the doctors. No need for a fellow to dose himself when there were three medics on the job, was there? If he needed anything, they'd give it to him, so he'd decided to take no medicine.

A delightful, dulling lassitude was creeping over him.

"MacNeil! *MacNeil!* Wake up, MacNeil!"

The spaceman vaguely heard the voice, and tried to respond, but a sudden dizziness overtook him. His stomach felt as though it were going to come loose from his interior.

"I'm sick," he said weakly. Then, with a terrible realization, "I'm really *awful* sick!"

He saw Dr. Smathers' face swimming above him and tried to lift himself from the bed. "Shoulda taken pills," he said through the haze that was beginning to fold over him again. "Locker box." And then he was unconscious again.

Dr. Smathers looked at him bleakly. The same thing was killing MacNeal as had killed the others. It had taken longer—much longer. But it had come.

And then the meaning of the spaceman's mumbled words came to him. Pills? Locker box?

He grabbed the unconscious man's right hand and shoved his right thumb up against the sensor plate in the front of the metal box next to the bed. He could have gotten the master key from Colonel Fennister, but he hadn't the time.

The box door dilated open, and Dr. Smathers looked inside.

When he came across the bottles, he swore under his breath, then flung

the spaceman's arm down and ran from the room.

"That's where he was getting his vitamins, then," said Dr. Pilar as he looked over the assortment of bottles that he and Smathers had taken from the locker box. "Look at 'em. He's got almost as many pills as you have." He looked up at the physician. "Do you suppose it was just vitamins that kept him going?"

"I don't know," said Smathers. "I've given him massive doses of every one of the vitamins—from my own supplies, naturally. He may rally round, if that's what it was. But why would he suddenly be affected by the stuff *now?*"

"Maybe he quit taking them?" Pilar made it half a question.

"It's possible," agreed Smathers. "A hypochondriac will sometimes leave off dosing himself if there's a doctor around to do it for him. As long as the subconscious need is filled, he's happy." But he was shaking his head.

"What's the matter?" Pilar asked.

Smathers pointed at the bottles. "Some of those are mislabeled. They all say vitamins of one kind or another on the label, but the tablets inside aren't all vitamins. MacNeil's been giving himself all kinds of things."

Pilar's eyes widened a trifle. "Do you suppose—"

"That one of them is an antidote?" Smathers snorted. "Hell, anything's possible at this stage of the game. The best thing we can do, I think, is give him a dose of everything there, and see what happens."

"Yeah, Doc, yeah," said MacNeil smiling weakly, "I feel a little better. Not real good, you understand, but better."

Under iron control, Dr. Smathers put on his best bedside manner, while Pilar and Petrelli hovered in the background.

"Now, look, son," said Smathers in a kindly voice, "we found the medicines in your locker box."

MacNeil's face fell, making him look worse. He'd dropped down close to death before the conglomerate mixture which had been pumped into his stomach had taken effect, and Smathers had no desire to put too much pressure on the man.

"Now, don't worry about it, son," he said hurriedly; "We'll see to it that you aren't punished for it. It's all right. We just want to ask you a few questions."

"Sure, Doc; anything," said MacNeil. But he still looked apprehensive.

"Have you been dosing yourself pretty regularly with these things?"

"Well . . . uh . . . well, yeah. Sometimes." He smiled feebly. "Sometimes I didn't feel so good, and I didn't want to bother the medics. You know how it is."

"Very considerate, I'm sure," said Smathers with just the barest trace of sarcasm, which, fortunately, fell unheeded on MacNeil's ears. "But which ones did you take every day?"

"Just the vitamins." He paused.

"And . . . uh . . . maybe an aspirin. The only things I took real regular were the vitamins, though. That's all right ain't it? Ain't vitamins food?"

"Sure, son, sure. What did you take yesterday morning, before you got so sick?"

"Just the vitamins," MacNeil said stoutly. "I figured that since you docs was takin' care of me, I didn't need no medicine."

Dr. Smathers glanced up hopelessly at the other two men. "That eliminates the vitamins," he said, *sotto voce*. He looked back at the patient. "No aspirin? No APC's? You didn't have a headache at all?"

MacNeil shook his head firmly. "I don't get headaches much." Again he essayed a feeble smile. "I ain't like you guys, I don't overwork my brains.'

"I'm sure you don't," said Smathers. Then his eyes gleamed. "You have quite a bit of stomach trouble, eh? Your digestion bad?"

"Yeah. You know; I told you about it. I get heartburn and acid stomach pretty often. And constipation."

"What do you take for that?"

"Oh, different things. Sometimes a soda pill, sometimes milk of magnesia, different things."

Smathers looked disappointed, but before he could say anything, Dr. Petrelli's awed but excited voice came from behind him. "Do you take Epsom salts?"

"Yeah."

"I wonder—" said Petrelli softly.

And then he left for the lab at a dead run.

Colonel Fennister and Major Grodski sat at the table in the lab, munching on banana-pears, blissfully enjoying the sweet flavor and the feeling of fullness they were imparting to their stomachs.

"MacNeil can't stay in the service, of course," said Fennister. "That is, not in any space-going outfit. We'll find an Earthside job for him, though. Maybe even give him a medal. You sure these things won't hurt us?"

Dr. Pilar started to speak, but Petrelli cut him off.

"Positive," said the chemist. "After we worked it out, it was pretty simple. The 'poison' was a chelating agent, that's all. You saw the test run I did for you."

The colonel nodded. He'd watched the little chemist add an iron salt to some of the fruit juice and seen it turn red. Then he'd seen it turn pale yellow when a magnesium salt was added. "But what's a chelating agent?" he asked.

"There are certain organic compounds," Dr. Petrelli explained, "that are . . . well, to put it simply, they're attracted by certain ions. Some are attracted by one ion, some by another. The chelating molecules cluster around the ion and take it out of circulation, so to speak; they neutralize it, in a way.

"Look, suppose you had a dangerous criminal on the loose, and didn't have any way to kill him. If you kept

him surrounded by policemen all the time, he couldn't do anything. See?"

The Space Service Officers nodded their understanding.

"We call that 'sequestering' the ion," the chemist continued. "It's used quite frequently in medicine, as Dr. Smathers will tell you. For instance, beryllium ions in the body can be deadly; beryllium poisoning is nasty stuff. But if the patient is treated with the proper chelating agent, the ions are surrounded and don't do any more damage. They're still there, but now they're harmless, you see."

"Well, then," said the colonel, "just what did this stuff in the fruit do?"

"It sequestered the iron ions in the body. They couldn't do their job. The body had to quit making hemoglobin, because hemoglobin needs iron. So, since there was no hemoglobin in the bloodstream, the patient developed sudden pernicious anemia and died of oxygen starvation."

Colonel Fennister looked suddenly at Dr. Smathers. "I thought you said the blood looked normal."

"It did," said the physician. "The colorimeter showed extra hemoglobin, in fact. But the chelating agent in the fruit turns red when it's connected up with iron—in fact, it's even redder than blood hemoglobin. And the molecules containing the sequestered iron tend to stick to the outside of the red blood cells, which threw the whole test off."

"As I understand it, then," said Major Grodski, "the antidote for the . . . uh . . . chelating agent is magnesium?"

"That's right," said Dr. Petrelli, nodding. "The stuff prefers magnesium ions to ferrous ions. They fit better within the chelating ring. Any source of magnesium will do, so long as there's plenty of it. MacNeil was using milk of magnesia, which is the hydroxide, for 'gastric acidity'. It's changed to chloride in the stomach. And he was using Epsom salts—the sulfate, and magnesium citrate as laxatives. He was well protected with magnesium ions."

"We tried it ourselves first, naturally," said Dr. Pilar. "We haven't had any ill effects for two days, so I think we'll be able to make it until the ship comes."

Major Grodski sighed. "Well, if not, I'll at least die with a full stomach." He reached for another banana-pear, then looked over at Petrelli. "Pass the salt, please."

Silently and solemnly, the chemist handed him the Epsom salts.

THE END

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HISTORY REPEATS

Illustrated by Martinez

BY GEORGE O. SMITH

There are — and very probably will always be—some Terrestrials who can't, and for that matter don't want, to call their souls their own....

ANABAR lays across the Spiral Arm, a sprawling sphere of influence vast, mighty, solid at the core. Only the far-flung boundary shows the slight ebb and flow of contingent cultures that may win a system or two today and lose them back tomorrow or a hundred years from now. Xanabar is the trading post of the galaxy, for only Xanabar is strong enough to stand over the trading table when belligerents meet and offer to take them both at once if they do not sheathe their swords. For this service Xanabar assesses her percentage, therefore Xanabar is rich. Her riches buy her mercenaries to enforce her doctrines. Therefore Xanabar is rotten at the under-core, for mercenaries have no god but gold.

The clatter of a hundred tongues mingled with the clink of glasses and floated through strata of smoke from the burning weeds of a hundred planets. From one of the tables, voices rise in mild disagreement. There is a jeering laugh from one side and a roar of anger from the other. Two men rise and face one another ready to follow their insults with violence. Before the eruption can start, a mercenary steps forward on lithe feet and lightly catches the back-swung arm, a quick hand removes the poised glass before it can be thrown into the adversary's face.

"Sit!" says the mercenary in a cold voice, and they sit still glaring at one another.

"Now," says the mercenary, "settl your differences by talk. Or depart i opposite directions. This is Xana bar!"

"He lies! He brags!"

"I do not lie. They *are* barbarians I do not brag. I *can* bring you one."

"You—"

"A wager," said the mercenary. "*A* wager. Xanabar can take no tax i blood." He faces one. "You clain you can do that which he says yo can not." Then not waiting for a re ply he faces the other, "And if h does, how much are you willing t pay?"

"How much is his life worth?"

"How much are you willing t pay?" demands the mercenary coldly

"Five hundredweight in crystal cut."

"An honorable sum. Do you agree?"

"Not enough—"

"For a task as easy as you claim it to be," said the mercenary, "Five hundredweight of crystal-cut seems honorable."

"But it means—"

"We in Xanabar are not interested in the details. Only in the tax. An honest wager-contract, outlanders. Otherwise I rule that your eruption here disturbed the peace."

The two outlanders look at one another; schoolboys caught fighting in the alley by a monitor who demands a bite of their apple in lieu of a visit to the principal. As if loath to touch one another they reach forward hesitantly and handshake in a quick light grip.

"Good!" glows the mercenary. He waves a hand and his fellows converge with contract-platen and etching stylus. "Now, gentlemen, please state the terms for Xanabar."

Peter Hawley strolled down a side street with a dog at his heel. It was a dog of many breeds, but not a mixture of careless parentage. Peter paused at a cross-street and looked uncertainly to left and right. "What do you make, Buregarde?"

"The noble dog says right," replied Buregarde.

"Right," said Peter turning up the street. "And stop this 'Noble dog' routine."

"Man is dog's best friend," said Buregarde. "If you'd called me something sensible, I wouldn't have looked it up. There is a statue to me in the Okeefenokee back on Earth. I am the noble dog. Pogo says so."

"I—"

"Easy Peter!" said the dog in a near-whisper.

"All right. Do we play down the chatter?"

Buregarde sat, lifted his nose and sniffed. His natural voice gave a faint whine of discontent. "I'm supposed to have a nose," he complained. "This is like trying to smell out a lone mouse in a zoological garden in midsummer."

"Why the warning?" asked Peter.

"All races smell the same when they are poised for violence," said the dog. "Trouble is that man-smell isn't pointed the way it's going, only where it's coming from."

Peter grunted. "Catch any woman-smell?"

"Just the usual whiff. Stale scent. She was here; she passed this way. But which way?"

"We can guess they made it away from the spaceport."

"Unless," said the dog taking another sniff of the air, "they're taking her back to some other spacecraft." Buregarde looked up at Peter. "Do you catch anything?"

"Just the usual mingled fright and danger, frantic despair."

"Directional?"

Peter shook his head. "No," he said. "The source is too close."

"Let's stroll up this street to the end and come back on the other side," said the dog. "Quietly."

In a saunter they went, alert and poised. A man and his dog from all appearances. But in Xanabar, the principal city of Xanabar the Empire they were huntsman and companion.

Like all cities of more than ten million souls, Xanabar had its glistening and lofty area and its slums—and what would have been a waterfront region in a seafaring city. The conditions were the same as they'd been everywhere for a few decades of thousands of years. Only the technology changes. Man's cave is stainless steel and synthetic plastic; the cave's man is swinging a better axe, and his hide is protected from the weather by stuff far more durable than his own skin. But he's the same man with the same hackles; they just rise for a few more thousand reasons

than the hackles of his ancestors.

"Got it!" said Buregarde coming to a brief point at a closed door.

"Let's go in!"

Buregarde's reply was half-snarl and half, "Look out!"

Peter whirled to catch a glimpse of a man upon him with pencil-ray coming to point. He faded down and toward the other, almost in a fall out of the path of the pencil-ray that flicked on and began a sweep upward and in. Peter caught his balance at the same time he clutched the wrist in his right hand. Then he went on down around and over, rising on his knees to flip the other man heels high in an arc that ended with a full-length, spine-thudding body smash on the pavement. Buregarde leaped in and slashed at the hand clutching the pencil-ray, snapped his head back and forth thrice and sent the weapon flying. Then with a savage growl he set a soft mouth against the other's throat and let the man feel the pressure of his fangs.

"Easy," said Peter.

Buregarde backed away a few inches. "Easy nothing," he snapped. "This man is the noble dog's worst enemy. He wanted your blood."

"Take it easy. I want his information."

The man looked up. "Barbarian Terrestrial!" he snarled.

Peter sneered. "And this is the capital city of the glorious civilization called Xanabar? Marble palaces with nobles of the blood, and stinking alleys with human rats. Where is she?"

The stranger spat.

"Buregarde, want some red meat?"

"He'd make me upchuck. Only rodents eat their own kind."

"Just a bite?"

"Do I have to swallow?"

"No. Just slash—"

"Wait, barbarian—"

"Barbarian Terrestrial, am I? You were maybe going to invite me for tea and cakes with that pencil-ray?"

"I—"

"Talk!" snapped Peter. "Where is she?"

"Who?"

"Buregarde—?"

"Yes, boss. The throat or the other hand?"

"All right—for the good it'll do you. She's in there. Go on in—and we'll have two of you!"

Buregarde growled, "Three of us. And we might be hard to handle."

Peter stood up and hauled the stranger to his feet. His right hand dripped blood from the dog's teeth. Peter looked for, and found the pencil-ray smashed against the stone front of the building. He cuffed the stranger across the face, turned him around, and pointed him toward the far corner.

"I count three," he said. "If you're not out of sight by three—"

"It'll be a pleasure, Peter," said Buregarde.

The stranger loped away on a crazy run. As he turned the corner he ran face on to one of the uniform-

ed mercenaries of Xanabar. The mercenary collared the stranger and took a quick inventory of the slashed right hand, the ripped clothing, and adding those to the frightened gallop he came back with the stranger's left arm held in a backlock.

Haughtily he demanded, "What goes on in Xanabar?"

Peter eyed the mercenary sourly. "Kidnaping and attempted murder."

"Who says such lawlessness runs rife in Xanabar?"

"I say so. Peter Hawley of the Extraterrestrial Service. I say so."

"You are mistaken, barbarian."

"I say so," said Buregarde.

"You're an animal."

"I am—and so are you."

"I'll not be insulted by an animal! I am—"

"Take it easy, Buregarde."

"Take it easy nothing. This mercenary foot-soldier forgets one thing—or maybe he doesn't know about it."

"Don't call His Excellency's Peacekeepers 'mercenaries'!" snapped the mercenary.

"Peacekeeper," chuckled the dog. "Well listen and become wise. Dog and man, man and dog, have been together for about a half-million years. Once dog helped man in war and peace, and man gave dog food and shelter. Dog helped man rise above the level of the savage, and man has helped dog rise to the level of intelligence. But dog has one advantage. None of us has been intelligent long enough to really believe that dog has a soul, and those of us who do believe that also know that dog's soul is devoted to man. Do you know about dog, Xanabian—Peacekeeper?"

"No—"

"Then don't force me to show you what kind of adversary intelligent dog can be. Mere man is a pushover!"

"Bah!"

Buregarde loped in a mad circle around the mercenary. His Excellency's Peacekeeper turned to stay facing the dog but found himself turning his back on Peter. He stepped back and to one side and reached for his heavy-duty pencil—the dog gave a low growl of warning and crouched for a leap.

"He means it—Peacekeeper," said Peter Hawley quietly. "Draw that pencil and he'll have your hand in ribbons before you can level it."

The mercenary drew in his breath.

"Whistle for help and he'll have your throat."

"I shall not permit this high handed—"

"Then stop sounding off and listen to us!" snapped Peter. "I charge the Empire of Xanabar with the crime of being indifferent to the welfare of the stranger within her gate. I charge kidnaping and attempted murder, and I charge the latter against the specimen you hold in your hand."

"An outlander!"

"Does he bring his own law to Xanabar? If he does, then so do I!"

"I arrest you all for breaking the Peace of Xanabar."

"Me, too?" asked Buregarde.

The mercenary ignored the dog's eager sally. "You are armed, Terrestrial."

"So was he."

"So am I!" snarled Buregarde showing a fine set of white fangs in the most effective gesture.

"This must cease!" thundered the mercenary. "You cannot threaten His Excellency's Peacekeepers!"

Buregarde growled, "Slip the mercenary a crystal-cut, boss. We've got a girl to find!"

"A girl? A Terrestrial girl?" asked the mercenary with his eyes opening.

"The daughter of our envoy to Lonaphite. Miss Vanessa Lewis. Last reported in her stateroom aboard the Terrestrial Spacecraft *Polaris* during landing pattern at Xanabar Citadel Spaceport."

The mercenary said, "The work of outlanders—riffraff such as this!"

"Well," snapped Peter Hawley, "do His Excellency's Peacemakers condone such goings-on?"

"We keep the Peace of Xanabar. Your charge is your word, Terrestrial."

"Terrestrial Barbarian, isn't it?"

"I arrest you—"

"Oh, stop it. For fiveweight of crystal-cut can you be bribed to haul that specimen off to jail and let me go about making my own Peace with Xanabar?"

"You accuse me of accepting bribes?"

"You're a mercenary, aren't you? Sevenweight of crystal-cut."

"Ten."

"Seven," said Peter.

"Ten," said the mercenary, "and you have one more caper coming."

"Ten," agreed Peter Hawley, "and you look the other way when I take the lid off."

"Still got it," said Buregarde, sniffing at the closed door but keeping one eye on the disappearing mercenary and his prisoner.

"I've got it, too. Still fright and concern; fear of harm, concern over what happens next."

"Strong?"

"Definitely," said Peter closing his eyes and holding his breath.

"Nothing measurable?" asked the dog after a full minute.

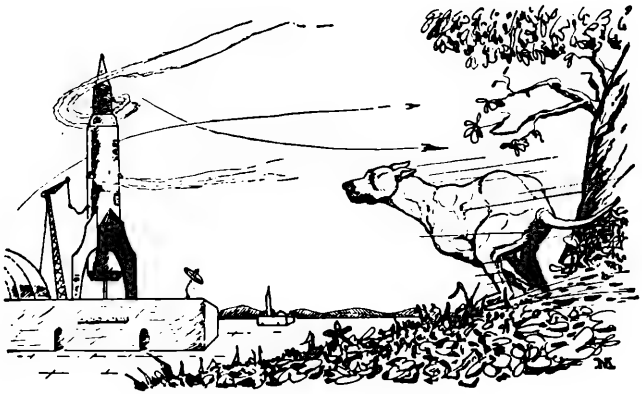
"No. Too bad I was never introduced to her. I have no idea of her strength of mind—wait!" Another minute went by in personal silence; Peter Hawley's concentration far too deep to be disturbed by the sounds of the city's spaceport slum by night. The dog backed away from the door and took an alert position to guard Peter while the man was immersed in his own mind. Finally Peter alerted and shook his head sadly. "I thought for a moment that she'd caught me. A fleeting thought of rescue or escape, concept of freedom, flight, safety. But wish-thinking. Not communication. Let's go in."

"Barge, or slink?" asked the dog.

"Slink."

"Have it your way," said Buregarde.

Outside, the place looked closed. The door was solid, a plastic in imitation of bronze through which



neither light nor sound passed. The windows were dark. But once the door was cracked, the wave of sound came pouring out along the slit of light and filled the street with echo and re-echo.

"Slink, now," said the dog.

"So everybody makes mistakes."

Inside, a woman leaned over a low counter. "Check your weap . . . say! You can't bring that animal in here!"

Buregarde said, "He isn't bringing me. I'm here because I like it."

The woman's eyes bugged. "What . . . kind—?"

"I am man's best friend—the noble dog of Barbarian Terra."

"Yes . . . but—"

"Oh," said Peter airily, "we're looking for a friend."

"Friend? Who is he?"

"It's a she and her name is Vanessa Lewis."

"She ain't here."

"The dame's a liar-ess, Peter. I scent her strong."

"We'll just take a look around," said Peter to the check girl.

"You'll have to check your weapons."

"I'd rather go in naked. Sorry. Not today. Weapons happen to be my business today. Come on, Buregarde."

Man and dog started along the hallway warily. Buregarde said, "Any touch?"

"Got a faint impression of alarm, danger, call out the guards."

"I scent violence," said the dog. "And—"

The door at the end of the hallway opened and a big man stepped out. "What's going on here?" he demanded flatly.

The check girl said, "He wouldn't check . . ."

The big man reached for his hip pocket.

Peter said, "Take him high!" and they plunged.

Peter dove for the man's knees, Buregarde went in a three-stride lope like an accordion folding and unfolding and then arched in a long leap with his snarling fangs aimed at the man's throat. Man and dog hit him low and high before he could open his mouth, before he could free the snub pencil-ray. There was a short scrabble that ended when Buregarde lifted the man's head and whammed it down hard against the floor.

Weakly, the check girl finished her statement, ". . . His weapons!" and keeled over in a dead faint.

Buregarde shook himself violently and worked his jaws, licking blood from his chops. Peter looked in through the open wall-door opposite the check counter; the racket had not been noticed by the roomful of spacemen and riffraff. The babble of a hundred tongues still went on amid the clink of glasses and the disturbing strains of Xanabian music. Smoke from a hundred semi-noxious weeds lay in strata across the room, and at a table in the far corner two men faced one another, their expressions a mixed pair. One held heavily begrudged admiration as he paid off five hundredweight of crystal-cut in the legal tender of Xanabar to the other, whose expression was greedy self-confidence. One of His Excellency's Peacekeepers presided over the exchange. Coldly he extracted a fiftyweight from the pile and folded it into the signed and completed wager-contract. For his own coffer he extracted a fiveweight and slipped it into his boot top.

Peter Hawley and Buregarde passed on, went through the far door dragging their late adversary ignominiously by the heels. Amid the lessened publicity of the distant hall, Peter checked the man and shrugged. "He may live," he said coldly, "if he doesn't bleed to death."

"You really ought to take 'em on the high side," said Buregarde, plaintively. "All I've got is my teeth to grab with. They don't bleed so bad from the ankle."

"They don't stay stopped that way, either," said Peter harshly.

"You'd not be getting any praise from the Chief for that sort of brutality."

"If Xanabar weren't rotten to the core, we wouldn't be plowing through it in the first place. Now, let's get going."

"Shouldn't you call for the rest of the crew?"

"Not until I'm certain the girl's here. I'd hate to cut the city-wide search for cold evidence."

"She's here. I scent her."

"Maybe it's past tense, Buregarde. Or maybe it's another woman."

"Could be. But one thing: It is definitely Terrestrial woman." The dog sniffed again. "You get anything?"

"No more than before. It's close and they're the same set of impres-

sions. Yet, any woman would be frantic with fear and concern."

"I . . . *shhh!*" Buregarde's sharp ears lifted instinctively at a distant sound not heard by the man. With a toss of his head, the dog folded one ear back, uncovering the inner shell. Like a sonic direction finder, Buregarde turned his head and listened.

"Man," he said finally with a low growling voice. "Peter, there'll be hell to pay around here directly. He's stumbled over our recent conquest."

"Let's get cutting!"

Peter started trying doors and peering in; the dog raced on ahead of the man, sniffing deep at the bottom of each. It was the dog that found the room. He called, "Here!" and Peter raced forward just as the fellow on the stairs yelled something in his native tongue.

Peter hit the door with the heel of his foot and slammed it open by splintering the doorframe. The dog crouched low and poised; Peter slipped in and around feeling for a light-switch. From inside there was a voiceless whimper of fright and from outside and below there came the pounding of several sets of heavy feet. Peter found the switch and flooded the room with light. The girl—whether she was Miss Vanessa Lewis or someone else, and kidnap-wise it was still a Terrestrial girl—lay trussed on the bed, a patch of surgical tape over her mouth.

"Sorry," said Peter in a voice that he hoped was soothing. He reached, freed a corner of the tape and ripped it off in a single swipe. The girl howled. Peter slapped her lightly. "Stop it!" he commanded sharply. "Vanessa Lewis?"

"Yes, but—"

"Call out the marines, Peter," snarled the dog.

"No! Bo! Back!"

Reluctantly the dog backed into the room. He crouched low, poised to spring, with his nose just beyond the doorframe.

"Four of 'em," he whimpered pleadingly. "I can get two—"

"Well, I can't get the other two unless I'm lucky," snapped Peter. "Don't be so eager to die for nothing, Buregarde."

"All this calculation," grumbled the dog sourly. "I don't call it a loss if I get two for one."

"I call it a loss if I don't get four for nothing—or the whole damned Empire of Xanabar for nothing, for that matter. We've a job to do and it ain't dying—until Miss Lewis is out of this glorious citadel."

The girl looked from one to the other. They did not need any identification; they were their own bona fides. Only man—Terrestrial Man—had intelligent dogs to work beside him. Period, question closed. Buregarde snarled at the door warningly while Peter stripped surgical tape from wrists and ankles.

Outside, someone called, "Come out or we blast!"

Buregarde snarled, "Come in and we'll cut you to bits!"

The quick flash of a pencil-ray flicked in a lance above the dog's

nose; Buregarde snapped back as the lancet of light cut downward, then snapped forward for a quick look outside as the little pencil of danger flickered dark.

"Careful, Bo!"

"You call the boys," snapped the dog. "I'll—"

Something came twisting forward to hit the doorframe, it dropped just inside the doorjamb. Buregarde leaped, snapped at the thing and caught it in midair, snapped his head in a vicious shake and sent it whirling back outside again before it could be identified. The dog sunfished and landed on all four. Then the thing went off with a dull *pouf!* outside. There was a gentle flash of quick light that was smothered by a billow of smoke. Buregarde leaped into the cloud and disappeared. There was a hoarse shriek and the mad scrabble of dog-claws on the hard floor, the sound of a heavy thud, and the angry snarl of a dog with its teeth fastened into something soft. Then there was the fast patter of dog-feet and Buregarde came around the door on a dead run, sliding sidewise to carom off the opened door into safety just as a pencil-ray flicked to follow him.

"Got him," said the dog in a satisfied tone. "That's one!"

He took his post by the doorframe again, the tip of his nose just outside. There was a consultation out there in the hallway, at which Buregarde called, "Make a wild rush for us!"

Miss Lewis said, "What are we going to do?"

"Fight it out," said Peter. "They can't win so long as we're alive now. I've got my crew on its way in a dead run, and if we make enough noise, some of His Excellency's Peacemakers will step in and demand their cut of the finances." He grinned. "How much are you worth, Miss Lewis?"

She shuddered. "I don't know how much father would pay—"

"Hit 'em low, Peter!" came Buregarde's snarl.

Three of them came in a-slant, bounced shoulders against the opened door, caught their bearings and hell was out for noon. Buregarde caught the first with a slash at the throat; they went down in a mad whirl of dog and thug, paws, tail, arms, legs and a spurt of blood. The second flicked his pencil-ray at Peter, its capsule charge faded to a mere sting before it cut into him. The third aimed a kick at the struggling dog. Vanessa Lewis snatched a box from the bureau and hurled it at the second. Peter thumbed his pencil-ray and winged the third man in the biceps. Buregarde leaped for the second man's gun hand and closed on it as the hurled box opened and scattershotted his face with bric-a-brac. The man with the bloody throat flailed out and caught Peter by the ankle, Peter stomped his face with his other heel. Miss Lewis picked up the table lamp and with a single motion turned off the light and finished felling the one with the ray-burned shoulder.

Buregarde dropped from the sec-

ond man's wrist and crouched to spring. The man cowered back, his good arm covering his throat and his other arm hanging limp. He mouthed fright-noises in some tongue native to some star a thousand light-years across the galaxy.

Coldly, Peter stepped forward and belted him in the plexus.

"Now," he said calmly, "we shall vacate the premises!"

They went side by side, facing slightly outward, Buregarde between them and slightly ahead. "We're coming out!" called the dog. "Three Barbarians from Terra!"

Down on the dark street, they met their mercenary again. He eyed them sourly. "I see you were, in a sense, successful."

Peter Hawley faced the mercenary. "We were successful and would you like to make something of it?"

"I'm going to have to arrest you, you know."

"You'll lose an arm trying!" snapped the dog.

"There's murder been committed tonight," said His Excellency's Peacemaker. "The Peace of Xanabar has been disturbed."

"Why you chiseling crook, there's been kidnaping tonight, and—"

"I'm afraid that I shall have to ask that the young lady produce her passport," said the mercenary. "Otherwise she's in Xanabar Citadel illegally."

Buregarde said, "Hit him low, Peter. Here come the boys."

"No!"

"Just once—for fun?"

"No. I want our money-grubbing Peacekeeper to carry a message to His Excellency. I want His Excellency to read some Terrestrial History. Once upon a time there was a place called the Byzantine Empire that laid across the trade routes. The upper crust of people used to serve the Presence of God in a golden throne whilst their underlings dealt in human slaves and procured comely concubines for the emperor; their policemen took bribes and human life was cheap. And when Byzantium fell, all the world was forced to seek a new trade route. So tell His Excellency that he'd better clean up his own foul mess, or some barbarians will clean it up for him."

"And that," said Buregarde, "goes for your dad-ratted cat!"

OPERATION HAYSTACK

BY FRANK HERBERT

Illustrated by van Dongen

It's hard to ferret out a gang of fanatics; it would, obviously, be even harder to spot a genetic line of dedicated men. But the problem Orne had was one step tougher than that!

WHEN the Investigation & Adjustment scout cruiser landed on Marak it carried a man the doctors had no hope of saving. He was alive only because he was in a womblike creche pod that had taken over most of his vital functions.

The man's name was Lewis Orne. He had been a blocky, heavy-muscled redhead with slightly off-center features and the hard flesh of a heavy planet native. Even in the placid repose of near death there was something clownish about his appearance. His burned, ungent-covered face looked made up for some bizarre show.

Marak is the League capital, and the I-A medical center there is probably the best in the galaxy, but it accepted the creche pod and Orne more as a curiosity than anything else. The man had lost one eye, three fingers of his left hand and part of his hair, suffered a broken jaw and various internal injuries. He had been in terminal shock for more than ninety hours.

Umbo Stetson, Orne's section chief, went back into his cruiser's "office" after a hospital flitter took pod and patient. There was an added droop to Stetson's shoulders that accentuated his usual slouching stance. His overlarge features were drawn into ridges of sorrow. A general straggling, trampish look about him was not helped by patched blue fatigues.

The doctor's words still rang in Stetson's ears: "This patient's vital tone is too low to permit operative replacement of damaged organs. He'll live for a while because of the pod, but—" And the doctor had shrugged.

Stetson slumped into his desk chair, looked out the open port beside him. Some four hundred meters below, the scurrying beetlelike activity of the I-A's main field sent up discordant roaring and clattering. Two rows of other scout cruisers were parked in line with Stetson's port—gleaming red and black needles. He stared at them without really seeing them.

It always happens on some "routine" assignment, he thought. *Nothing but a slight suspicion about Heleb: the fact that only women held high office. One simple, unexplained fact . . . and I lose my best agent!*

He sighed, turned to his desk, began composing the report:

"The militant core on the Planet Heleb has been eliminated. Occupation force on the ground. No further danger to Galactic peace expected from this source. Reason for operation: Rediscovery & Re-education—*after two years on the planet*—failed to detect signs of militancy. The major indications were: 1) a ruling caste restricted to women, and 2) disparity between numbers of males and females *far* beyond the Lutig norm! Senior Field Agent Lewis Orne found that the ruling caste was controlling the sex of offspring at conception (see attached details), and had raised a male slave army to maintain its rule. The R&R agent had been drained of information, then killed. Arms constructed on the basis of that information caused critical injuries to Senior Field Agent Orne. He is not expected to live. I am hereby urging that he receive the Galaxy Medal, and that his name be added to the Roll of Honor."

Stetson pushed the page aside. That was enough for ComGO, who never read anything but the first page anyway. Details were for his aides to chew and digest. They could wait. Stetson punched his desk callbox for Orne's service record, set himself to the task he most detested: notifying next of kin. He read, pursing his lips:

"Home Planet: Chargon. Notify in case of accident or death: Mrs. Victoria Orne, mother."

He leafed through the pages, reluctant to send the hated message. Orne had enlisted in the Marak Marines at age seventeen—a runaway from home—and his mother had given post-enlistment consent. Two years later: scholarship transfer to Uni-Galacta, the R&R school here on Marak. Five years of school and one R&R field assignment under his belt, and he had been drafted into the I-A for brilliant detection of militancy on Hammel. And two years later—*kaput!*

Abruptly, Stetson hurled the service record at the gray metal wall across from him; then he got up, brought the record back to his desk, smoothing the pages. There were tears in his eyes. He flipped a switch on his desk, dictated the notification to Central Secretarial, ordered it sent out priority. Then he went groundside and got drunk on Hochar Brandy, Orne's favorite drink.

The next morning there was a reply from Chargon: "Lewis Orne's mother too ill to travel. Sisters being notified. Please ask Mrs. Ipscott Bullone of Marak, wife of the High Commissioner, to take over for family." It was signed: "Madrena Orne Standish, sister."

With some misgivings, Stetson called the residence of Ipscott Bullone, leader of the majority party in

the Marak Assembly. Mrs. Bullone took the call with blank screen. There was a sound of running water in the background. Stetson stared at the grayness swimming in his desk visor. He always disliked a blank screen. A baritone husk of a voice said: "This is Polly Bullone."

Stetson introduced himself, relayed the Chargon message.

"Victoria's boy dying? Here? Oh, the poor thing! And Madrena's back on Chargon . . . the election. Oh, yes, of course. I'll get right over to the hospital!"

Stetson signed off, broke the contact.

The High Commissioner's wife yet! he thought. Then, because he had to do it, he walled off his sorrow, got to work.

At the medical center, the oval creche containing Orne hung from ceiling hooks in a private room. There were humming sounds in the dim, watery greenness of the room, rhythmic chuggings, sighings. Occasionally, a door opened almost soundlessly, and a white-clad figure would check the graph tapes on the creche's meters.

Orne was lingering. He became the major conversation piece at the internes' coffee breaks: "That agent who was hurt on Heleb, he's still with us. Man, they must build those guys different from the rest of us! . . . Yeah! Understand he's got only about an eighth of his insides . . . liver, kidneys, stomach—all gone . . . Lay you odds he doesn't last out the month . . . Look what old sure-thing McTavish wants to bet on!"

On the morning of his eighty-eighth day in the creche, the day nurse came into Orne's room, lifted the inspection hood, looked down at him. The day nurse was a tall, lean-faced professional who had learned to meet miracles and failures with equal lack of expression. However, this routine with the dying I-A operative had lulled her into a state of psychological unpreparedness. *Any day now, poor guy,* she thought. And she gasped as Orne opened his sole remaining eye, said:

"Did they clobber those dames on Heleb?"

"Yes, sir!" she blurted. "They really did, sir!"

"Good!"

Orne closed his eye. His breathing deepened.

The nurse rang frantically for the doctors.

It had been an indeterminate period in a blank fog for Orne, then a time of pain and the gradual realization that he was in a creche. Had to be. He could remember his sudden exposure on Heleb, the explosion—then nothing. Good old creche. It made him feel safe now, shielded from all danger.

Orne began to show minute but steady signs of improvement. In another month, the doctors ventured an intestinal graft that gave him a new spurt of energy. Two months later, they replaced missing eye and fingers, restored his scalp line, worked artistic surgery on his burn scars.

Fourteen months, eleven days, five

hours and two minutes after he had been picked up "as good as dead," Orne walked out of the hospital under his own power, accompanied by a strangely silent Umbo Stetson.

Under the dark blue I-A field cape, Orne's coverall uniform fitted his once muscular frame like a deflated bag. But the pixie light had returned to his eyes—even to the eye he had received from a nameless and long dead donor. Except for the loss of weight, he looked to be the same Lewis Orne. If he was different—beyond the "spare parts"—it was something he only suspected, something that made the idea, "twice-born," not a joke.

Outside the hospital, clouds obscured Marak's green sun. It was midmorning. A cold spring wind bent the pile lawn, tugged fitfully at the border plantings of exotic flowers around the hospital's landing pad.

Orne paused on the steps above the pad, breathed deeply of the chill air. "Beautiful day," he said.

Stetson reached out a hand to help Orne down the steps, hesitated, put the hand back in his pocket. Beneath the section chief's look of weary superciliousness there was a note of anxiety. His big features were set in a frown. The drooping eyelids failed to conceal a sharp, measuring stare.

Orne glanced at the sky to the southwest. "The flitter ought to be here any minute." A gust of wind tugged at his cape. He staggered, caught his balance. "I *feel* good."

"You look like something left over from a funeral," growled Stetson.

"Sure—my funeral," said Orne. He grinned. "Anyway, I was getting tired of that walk-around-type morgue. All my nurses were married."

"I'd almost stake my life that I could trust you," muttered Stetson.

Orne looked at him. "No, no, Stet . . . stake *my* life. I'm used to it."

Stetson shook his head. "No, dammit! I trust you, but you deserve a peaceful convalescence. We've no right to saddle you with—"

"Stet?" Orne's voice was low, amused.

"Huh?" Stetson looked up.

"Let's save the noble act for someone who doesn't know you," said Orne. "You've a job for me. O.K. You've made the gesture for your conscience."

Stetson produced a wolfish grin. "All right. So we're desperate, and we haven't much time. In a nutshell, since you're going to be a house guest at the Bullones'—we suspect Ipscott Bullone of being the head of a conspiracy to take over the government."

"What do you mean—*take over the government?*" demanded Orne. "The Galactic High Commissioner *is* the government—subject to the Constitution and the Assemblymen who elected him."

"We've a situation that could explode into another Rim War, and we think he's at the heart of it," said Stetson. "We've eighty-one touchy

planets, all of them old-line steadies that have been in the League for years. And on every one of them we have reason to believe there's a clan of traitors sworn to overthrow the League. Even on your home planet—Chargon."

"You want me to go home for my convalescence?" asked Orne. "Haven't been there since I was seventeen. I'm not sure that—"

"No, dammit! We want you as the Bullones' house guest! And speaking of that, would you mind explaining how they were chosen to ride herd on you?"

"There's an odd thing," said Orne. "All those gags in the I-A about old Upshook Ipscott Bullone . . . and then I find that his wife went to school with my mother."

"Have you met Himself?"

"He brought his wife to the hospital a couple of times."

Again, Stetson looked to the southwest, then back to Orne. A pensive look came over his face. "Every schoolkid knows how the Nathians and the Marakian League fought it out in the Rim War—how the old civilization fell apart—and it all seems kind of distant," he said.

"Five hundred standard years," said Orne.

"And maybe no farther away than yesterday," murmured Stetson. He cleared his throat.

And Orne wondered why Stetson was moving so cautiously. *Something deep troubling him.* A sudden thought struck Orne. He said: "You spoke of trust. Has this conspiracy involved the I-A?"

"We think so," said Stetson. "About a year ago, an R&R archeological team was nosing around some ruins on Dabih. The place was all but vitrified in the Rim War, but a whole bank of records from a Nathian outpost escaped." He glanced sidelong at Orne. "The Rah&Rah boys couldn't make sense out of the records. No surprise. They called in an I-A crypt-analyst. He broke a complicated substitution cipher. When the stuff started making sense he pushed the panic button."

"For something the Nathians wrote five hundred years ago?"

Stetson's drooping eyelids lifted. There was a cold quality to his stare. "This was a routing station for key Nathian families," he said. "Trained refugees. An old dodge . . . been used as long as there've been—"

"But five hundred *years*, Stet!"

"I don't care if it was five *thousand* years!" barked Stetson. "We've intercepted some scraps since then that were written in the *same* code. The bland confidence of *that!* Wouldn't that gall you?" He shook his head. "And every scrap we've intercepted deals with the coming elections."

"But the election's only a couple of days off!" protested Orne.

Stetson glanced at his wristchrono. "Forty-two hours to be exact," he said. "Some deadline!"

"Any names in these old records?" asked Orne.

Stetson nodded. "Names of plan-

ets, yes. People, no. Some code names, but no cover names. Code name on Chargon was *Winner*. That ring any bells with you?"

Orne shook his head. "No. What's the code name here?"

"The Head," said Stetson. "But what good does that do us? They're sure to've changed those by now."

"They didn't change their communications code," said Orne.

"No . . . they didn't."

"We must have something on them, some leads," said Orne. He felt that Stetson was holding back something vital.

"Sure," said Stetson. "We have history books. They say the Nathians were top drawer in political mechanics. We know for a fact they chose landing sites for their *refugees* with diabolical care. Each family was told to dig in, grow up with the adopted culture, develop the weak spots, build an underground, train their descendants to take over. They set out to bore from within, to make victory out of defeat. The Nathians were long on patience. They came originally from nomad stock on Nathia II. Their mythology calls them Arbs or Ayrbs. Go review your seventh grade history. You'll know almost as much as we do!"

"Like looking for the traditional needle in the haystack," muttered Orne. "How come you suspect High Commissioner Upshook?"

Stetson wet his lips with his tongue. "One of the Bullones' seven daughters is currently at home," he said. "Name's Diana. A field leader in the 1-A women. One of the Nathian code messages we intercepted had her name as addressee."

"Who sent the message?" asked Orne. "What was it all about?"

Stetson coughed. "You know, Lew, we cross-check everything. This message was signed M.O.S. The only M.O.S. that came out of the comparison was on a routine next-of-kin reply. We followed it down to the original copy, and the handwriting checked. Name of Madrena Orne Standish."

"Maddie?" Orne froze, turned slowly to face Stetson. "So that's what's troubling you!"

"We know you haven't been home since you were seventeen," said Stetson. "Your record with us is clean. The question is—"

"Permit me," said Orne. "The question is: Will I turn in my own sister if it falls that way?"

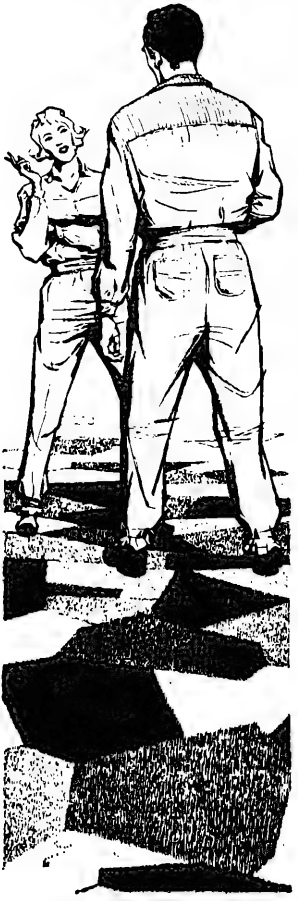
Stetson remained silent, staring at him.

"O.K.," said Orne. "My job is seeing that we don't have another Rim War. Just answer me one question: How's Maddie mixed up in this? My family isn't one of these traitor clans."

"This whole thing is all tangled up with politics," said Stetson. "We think it's because of her husband."

"Ahhhh, the member for Chargon," said Orne. "I've never met him." He looked to the southwest where a flitter was growing larger as it approached. "Who's my cover contact?"

"That mini-transceiver we planted



in your neck for the Gienah job," said Stetson. "It's still there and functioning. Anything happens around you, we hear it."

Orne touched the subvocal stud at his neck, moved his speaking muscles without opening his mouth. A surf-hissing voice filled the matching transceiver in Stetson's neck:

"You pay attention while I'm making a play for this Diana Bullone, you hear? Then you'll know how an expert works."

"Don't get so interested in your work that you forget why you're out there," growled Stetson.

Mrs. Bullone was a fat little mouse of a woman. She stood almost in the center of the guest room of her home, hands clasped across the paunch of a long, dull silver gown. She had demure gray eyes, grandmotherly gray hair combed straight back in a jeweled net—and that shocking baritone husk of a voice issuing from a small mouth. Her figure sloped out from several chins to a matronly bosom, then dropped straight like a barrel. The top of her head came just above Orne's dress epaulets.

"We want you to feel at home here, Lewis," she husked. "You're to consider yourself one of the family."

Orne looked around at the Bullone guest room: low key furnishings with an old-fashioned selectacol for change of decor. A polawindow looked out onto an oval swimming pool, the glass muted to dark blue. It gave the outside a moonlight ap-

pearance. There was a contour bed against one wall, several built-ins, and a door partly open to reveal bathroom tiles. Everything traditional and comfortable.

"I already *do* feel at home," he said. "You know, your house is very like our place on Chargon. I was surprised when I saw it from the air. Except for the setting, it looks almost identical."

"I guess your mother and I shared ideas when we were in school," said Polly. "We were *very* close friends."

"You must've been to do all this for me," said Orne. "I don't know how I'm ever going to—"

"Ah! Here we are!" A deep masculine voice boomed from the open door behind Orne. He turned, saw Ipscott Bullone, High Commissioner of the Marakian League. Bullone was tall, had a face of harsh angles and deep lines, dark eyes under heavy brows, black hair trained in receding waves. There was a look of ungainly clumsiness about him.

He doesn't strike me as the dictator type, thought Orne. *But that's obviously what Stet suspects.*

"Glad you made it out all right, son," boomed Bullone. He advanced into the room, glanced around. "Hope everything's to your taste here."

"Lewis was just telling me that our place is very like his mother's home on Chargon," said Polly.

"It's old fashioned, but we like it," said Bullone. "Just a great big tetragon on a central pivot. We can turn any room we want to the sun, the shade or the breeze, but we usually leave the main salon pointing northeast. View of the capital, you know."

"We have a sea breeze on Chargon that we treat the same way," said Orne.

"I'm sure Lewis would like to be left alone for a while now," said Polly. "This is his first day out of the hospital. We mustn't tire him." She crossed to the polawindow, adjusted it to neutral gray, turned the selectacol, and the room's color dominance shifted to green. "There, that's more restful," she said. "Now, if there's anything you need you just ring the bell there by your bed. The autobutle will know where to find us."

The Bullones left, and Orne crossed to the window, looked out at the pool. The young woman hadn't come back. When the chauffeur-driven limousine flitter had dropped down to the house's landing pad, Orne had seen a parasol and sunhat nodding to each other on the blue tiles beside the pool. The parasol had shielded Polly Bullone. The sunhat had been worn by a shapely young woman in swimming tights, who had rushed off into the house.

She was no taller than Polly, but slender and with golden red hair caught under the sunhat in a swimmer's chignon. She was not beautiful —face too narrow with suggestions of Bullone's cragginess, and the eyes overlarge. But her mouth was full-lipped, chin strong, and there had been an air of exquisite assurance about her. The total effect had been

one of striking elegance—extremely feminine.

Orne looked beyond the pool: wooded hills and, dimly on the horizon, a broken line of mountains. The Bullones lived in expensive isolation. Around them stretched miles of wilderness, rugged with planned neglect.

Time to report in, he thought. Orne pressed the neck stud on his transceiver, got Stetson, told him what had happened to this point.

"All right," said Stetson. "Go find the daughter. She fits the description of the gal you saw by the pool."

"That's what I was hoping," said Orne.

He changed into light-blue fatigues, went to the door of his room, let himself out into a hall. A glance at his wristchrono showed that it was shortly before noon—time for a bit of scouting before they called lunch. He knew from his brief tour of the house and its similarity to the home of his childhood that the hall let into the main living salon. The public rooms and men's quarters were in the outside ring. Secluded family apartments and women's quarters occupied the inner section.

Orne made his way to the salon. It was long, built around two sections of the tetragon, and with low divans beneath the view windows. The floor was thick pile rugs pushed one against another in a crazy patchwork of reds and browns. At the far end of the room, someone in blue fatigues like his own was bent over a stand of some sort. The figure straightened at the same time a tinkle of music filled the room. He recognized the red-gold hair of the young woman he had seen beside the pool. She was wielding two mallets to play a stringed instrument that lay on its side supported by a carved-wood stand.

He moved up behind her, his footsteps muffled by the carpeting. The music had a curious rhythm that suggested figures dancing wildly around firelight. She struck a final chord, muted the strings.

"That makes me homesick," said Orne.

"Oh!" She whirled, gasped, then smiled. "You startled me. I thought I was alone."

"Sorry. I was enjoying the music."

"I'm Diana Bullone," she said. "You're Mr. Orne."

"Lew to all of the Bullone family, I hope," he said.

"Of course . . . Lew." She gestured at the musical instrument. "This is very old. Most find its music . . . well, rather weird. It's been handed down for generations in mother's family."

"The kaithra," said Orne. "My sisters play it. Been a long time since I've heard one."

"Oh, of course," she said. "Your mother's—" She stopped, looked confused. "I've got to get used to the fact that you're . . . I mean that we have a strange man around the house who isn't *exactly* strange."

Orne grinned. In spite of the blue I-A fatigues and a rather severe

pulled-back hairdo, this was a handsome woman. He found himself liking her, and this caused him a feeling near self-loathing. She was a suspect. He couldn't afford to like her. But the Bullones were being so decent, taking him in like this. And how was their hospitality being repaid? By spying and prying. Yet, his first loyalty belonged to the I-A, to the peace it represented.

He said rather lamely: "I hope you get over the feeling that I'm strange."

"I'm over it already," she said. She linked arms with him, said: "If you feel up to it, I'll take you on the deluxe guided tour."

By nightfall, Orne was in a state of confusion. He had found Diana fascinating, and yet the most comfortable woman to be around that he had ever met. She liked swimming, *paloika* hunting, *ditar* apples— She had a "poo-poo" attitude toward the older generation that she said she'd never before revealed to anyone. They had laughed like fools over utter nonsense.

Orne went back to his room to change for dinner, stopped before the polawindow. The quick darkness of these low latitudes had pulled an ebon blanket over the landscape. There was city-glow off to the left, and an orange halo to the peaks where Marak's three moons would rise. *Am I falling in love with this woman?* he asked himself. He felt like calling Stetson, not to report but just to talk the situation out. And this made him acutely aware that Stetson or an aide had heard everything said between them that afternoon.

The autobutle called dinner. Orne changed hurriedly into a fresh lounge uniform, found his way to the small salon across the house. The Bullones already were seated around an old-fashioned bubble-slot table set with real candles, golden *shardi* service. Two of Marak's moons could be seen out the window climbing swiftly over the peaks.

"You turned the house," said Orne.

"We like the moonrise," said Polly. "It seems more romantic, don't you think?" She glanced at Diana.

Diana looked down at her plate. She was wearing a low-cut gown of *firemesh* that set off her red hair. A single strand of *Reinach* pearls gleamed at her throat.

Orne sat down in the vacant seat opposite her. *What a handsome woman!* he thought.

Polly, on Orne's right, looked younger and softer in a green stola gown that hazed her barrel contours. Bullone, across from her, wore black lounging shorts and knee-length *kubi* jacket of golden pearl cloth. Everything about the people and setting reeked of wealth, power. For a moment, Orne saw that Stetson's suspicions could have basis in fact. Bullone might go to any lengths to maintain this luxury.

Orne's entrance had interrupted an argument between Polly and her

husband. They welcomed him, went right on without inhibition. Rather than embarrassing him, this made him feel more at home, more accepted.

"But I'm not running for office this time," said Bullone patiently. "Why do we have to clutter up the evening with that many people just to—"

"Our election night parties are traditional," said Polly.

"Well, I'd just like to relax quietly at home tomorrow," he said. "Take it easy with just the family here and not have to—"

"It's not like it was a *big* party," said Polly. "I've kept the list to fifty."

Diana straightened, said: "This is an important election Daddy! How could you *possibly* relax? There're seventy-three seats in question . . . the whole balance. If things go wrong in just the Alkes sector . . .

why . . . you could be sent back to the floor. You'd lose your job as . . . why . . . someone else could take over as—"

"Welcome to the job," said Bullone. "It's a headache." He grinned at Orne. "Sorry to burden you with this, m'boy, but the women of this family run me ragged. I guess from what I hear that you've had a pretty busy day, too." He smiled paternally at Diana. "And your first day out of the hospital."

"She sets quite a pace, but I've enjoyed it," said Orne.

"We're taking the small flitter for a tour of the wilderness area tomorrow," said Diana. "Lew can relax all the way. I'll do the driving."

"Be sure you're back in plenty of time for the party," said Polly. "Can't have—" She broke off at a low bell from the alcove behind her. "That'll be for me. Excuse me, please . . . no, don't get up."

Orne bent to his dinner as it came out of the bubble slot beside his plate: meat in an exotic sauce, *Sirik* champagne, *paloika au semil* . . . more luxury.

Presently, Polly returned, resumed her seat.

"Anything important?" asked Bullone.

"Only a cancellation for tomorrow night. Professor Wingard is ill."

"I'd just as soon it was cancelled down to the four of us," said Bullone.

Unless this is a pose, this doesn't sound like a man who wants to grab more power, thought Orne.

"Scottie, you should take more pride in your office!" snapped Polly. "You're an important man."

"If it weren't for you, I'd be a nobody and prefer it," said Bullone. He grinned at Orne. "I'm a political idiot compared to my wife. Never saw anyone who could call the turn like she does. Runs in her family. Her mother was the same way."

Orne stared at him, fork raised from plate and motionless. A sudden idea had exploded in his mind.

"You must know something of this life, Lewis," said Bullone. "Your father was member for Chargon once, wasn't he?"

"Yes," murmured Orne. "But that was before I was born. He died in office." He shook his head, thought: *It couldn't be . . . but—*

"Do you feel all right, Lew?" asked Diana. "You're suddenly so pale."

"Just tired," said Orne. "Guess I'm not used to so much activity."

"And I've been a beast keeping you so busy today," she said.

"Don't you stand on ceremony here, son," said Polly. She looked concerned. "You've been very sick, and we understand. If you're tired, you go right on into bed."

Orne glanced around the table, met anxious attention in each face. He pushed his chair back, said: "Well, if you really don't mind—"

"Mind!" barked Polly. "You scoot along now!"

"See you in the morning, Lew," said Diana.

He nodded, turned away, thinking: *What a handsome woman!* As he started down the hall, he heard Bullone say to Diana: "Di, perhaps you'd better not take that boy out tomorrow. After all, he *is* supposed to be here for a rest." Her answer was lost as Orne entered the hall, closed the door.

In the privacy of his room, Orne pressed the transceiver stud at his neck, said: *"Stet?"*

A voice hissed in his ears: *"This is*

Mr. Stetson's relief. Orne, isn't it?"

"Yes. I want a check right away on those Nathian records the archaeologists found. Find out if Heleb was one of the planets they seeded."

"Right. Hang on." There was a long silence, then: *"Lew, this is Stet. How come the question about Heleb?"*

"Was it on that Nathian list?"

"Negative. Why'd you ask?"

"Are you sure, Stet? It'd explain a lot of things."

"It's not on the lists, but . . . wait a minute." Silence. Then: *"Heleb was on line of flight to Auriga, and Auriga was on the list. We've reason to doubt they put anyone down on Auriga. If their ship ran into trouble—"*

"That's it!" snapped Orne.

"Keep your voice down or talk subvocally," ordered Stetson. *"Now, answer my question: What's up?"*

"Something so fantastic it frightens me," said Orne. *"Remember that the women who ruled Heleb bred female or male children by controlling the sex of their offspring at conception. The method was unique. In fact, our medics thought it was impossible until—"*

"You don't have to remind me of something we want buried and forgotten," interrupted Stetson. *"Too much chance for misuse of that formula."*

"Yes," said Orne. *"But what if your Nathian underground is composed entirely of women bred the same way? What if the Heleb women were just a bunch who got out of hand because they'd lost contact with the main element?"*

"Holy Moley!" blurted Stetson. *"Do you have evidence—"*

"Nothing but a hunch," said Orne. *"Do you have a list of the guests who'll be here for the election party tomorrow?"*

"We can get it. Why?"

"Check for women who mastermind their husbands in politics. Let me know how many and who."

"Lew, that's not enough to—"

"That's all I can give you for now, but I think I'll have more. Remember that . . ." he hesitated, spacing his words as a new thought struck him *". . . the . . . Nathians . . . were . . . nomads."*

Day began early for the Bullones. In spite of its being election day, Bullone took off for his office an hour after dawn. "See what I mean about this job owning you?" he asked Orne.

"We're going to take it easy today, Lew," said Diana. She took his hand as they came up the steps after seeing her father to his limousine flitter. The sky was cloudless.

Orne felt himself liking her hand in his—liking the feel of it too much. He withdrew his hand, stood aside, said: "Lead on."

I've got to watch myself, he thought. *She's too charming.*

"I think a picnic," said Diana. "There's a little lake with grassy banks off to the west. We'll take viewers and a couple of good novels. This'll be a do-nothing day."

Orne hesitated. There might be things going on at the house that he should watch. But no . . . if he was right about this situation, then Diana could be the weak link. Time was closing in on them, too. By tomorrow the Nathians could have the government completely under control.

It was warm beside the lake. There were purple and orange flowers above the grassy bank. Small creatures flitted and cheeped in the brush and trees. There was a *groomis* in the reeds at the lower end of the lake, and every now and then it honked like an old man clearing his throat.

"When we girls were all at home we used to picnic here every Eightday," said Diana. She lay on her back on the groundmat they'd spread. Orne sat beside her facing the lake. "We made a raft over there on the other side," she said. She sat up, looked across the lake. "You know, I think pieces of it are still there. See?" She pointed at a jumble of logs. As she gestured, her hand brushed Orne's.

Something like an electric shock passed between them. Without knowing exactly how it happened, Orne found his arms around Diana, their lips pressed together in a lingering kiss. Panic was very close to the surface in Orne. He broke away.

"I didn't plan for that to happen," whispered Diana.

"Nor I," muttered Orne. He shook his head. "Sometimes things can get into an awful mess!"

Diana blinked. "Lew . . . don't you . . . like me?"

He ignored the monitoring transceiver, spoke his mind. *They'll just think it's part of the act,* he thought. And the thought was bitter.

"Like you?" he asked. "I think I'm in love with you!"

She sighed, leaned against his shoulder. "Then what's wrong? You're not already married. Mother had your service record checked." Diana smiled impishly. "Mother has second sight."

The bitterness was like a sour taste in Orne's mouth. He could see the pattern so clearly. "Di, I ran away from home when I was seventeen," he said.

"I know, darling. Mother's told me all about you."

"You don't understand," he said. "My father died before I was born. He—"

"It must've been very hard on your mother," she said. "Left all alone with her family . . . and a new baby on the way."

"They'd known for a long time," said Orne. "My father had *Broach's* disease, and they found out too late. It was already in the central nervous system."

"How horrible," whispered Diana.

Orne's mind felt suddenly like a fish out of water. He found himself grasping at a thought that flopped around just out of reach. "Dad was in politics," he whispered. He felt as though he were living in a dream. His voice stayed low, shocked. "From when I first began to talk,

Mother started grooming me to take his place in public life."

"And you didn't like politics." said Diana.

"I hated it!" he growled. "First chance, I ran away. One of my sisters married a young fellow who's now the member for Chargon. I hope he enjoys it!"

"That'd be Maddie," said Diana.

"You know her?" asked Orne. Then he remembered what Stetson had told him, and the thought was chilling.

"Of course I know her," said Diana. "Lew, what's wrong with you?"

"You'd expect me to play the same game, you calling the shots," he said. "Shoot for the top, cut and scramble, claw and dig."

"By tomorrow all that may not be necessary," she said.

Orne heard the sudden hiss of the carrier wave in his neck transceiver, but there was no voice from the monitor.

"What's . . . happening . . . tomorrow?" he asked.

"The election, silly," she said. "Lew, you're acting very strangely. Are you sure you're feeling all right." She put a hand to his forehead. "Perhaps we'd—"

"Just a minute," said Orne. "About us—" He swallowed.

She withdrew her hand. "I think my parents already suspect. We Bullones are notorious love-at-first-sighters." Her overlarge eyes studied him fondly. "You don't feel feverish, but maybe we'd better—"

"What a dope I am!" snarled Orne. "I just realized that I have to be a Nathian, too."

"You *just* realized?" She stared at him.

There was a hissing gasp in Orne's transceiver.

"The identical patterns in our families," he said. "Even to the houses. And there's the real key. What a dope!" He snapped his fingers. "*The head!* Polly! Your mother's the grand boss woman, isn't she?"

"But, darling . . . of course. She—"

"You'd better take me to her and fast!" snapped Orne. He touched the stud at his neck, but Stetson's voice intruded.

"Great work, Lew! We're moving in a special shock force. Can't take any chances with—"

Orne spoke aloud in panic: *"Stet! You get out to the Bullones! And you get there alone! No troops!"*

Diana had jumped to her feet, backed away from him.

"What do you mean?" demanded Stetson.

"I'm saving our stupid necks!" barked Orne. *"Alone! You hear? Or we'll have a worse mess on our hands than any Rim War!"*

There was an extended silence. *"You hear me, Stet?"* demanded Orne.

"O.K., Lew. We're putting the O-force on standby. I'll be at the Bullones' in ten minutes. ComGO will be with me." Pause. *"And you'd better know what you're doing!"*

It was an angry group in a corner of the Bullones' main salon. Louvered shades cut the green glare of a noon sun. In the background there was the hum of air-conditioning and the clatter of roboservants preparing for the night's election party. Stetson leaned against the wall beside a divan, hands jammed deeply into the pockets of his wrinkled, patched fatigues. The wagon tracks furrowed his high forehead. Near Stetson, Admiral Sobat Spencer, the I-A's Commander of Galactic Operations, paced the floor. ComGO was a bull-necked bald man with wide blue eyes, a deceptively mild voice. There was a caged animal look to his pacing —three steps out, three steps back.

Polly Bullone sat on the divan. Her mouth was pulled into a straight line. Her hands were clasped so tightly in her lap that the knuckles showed white. Diana stood beside her mother. Her fists were clenched at her sides. She shivered with fury. Her gaze remained fixed, glaring at Orne.

"O.K., so my stupidity set up this little meeting," snarled Orne. He stood about five paces in front of Polly, hands on hips. The admiral, pacing away at his right, was beginning to wear on his nerves. "But you'd better listen to what I have to say." He glanced at the ComGO. "*All* of you."

Admiral Spencer stopped pacing, glowered at Orne. "I have yet to hear a good reason for not tearing this place apart . . . getting to the bottom of this situation."

"You . . . traitor, Lewis!" husked Polly.

"I'm inclined to agree with you, Madame," said Spencer. "Only from a different point of view." He glanced at Stetson. "Any word yet on Scottie Bullone?"

"They were going to call me the minute they found him," said Stetson. His voice sounded cautious, brooding.

"You were coming to the party here tonight, weren't you, admiral?" asked Orne.

"What's that have to do with anything?" demanded Spencer.

"Are you prepared to jail your wife and daughters for conspiracy?" asked Orne.

A tight smile played around Polly's lips.

Spencer opened his mouth, closed it soundlessly.

"The Nathians are mostly women," said Orne. "There's evidence that your womenfolk are among them."

The admiral looked like a man who had been kicked in the stomach. "What . . . evidence?" he whispered.

"I'll come to that in a moment," said Orne. "Now, note this: the Nathians are mostly women. There were only a few *accidents* and a few planned males, like me. That's why there were no family names to trace —just a tight little female society, all working to positions of power through their men."

Spencer cleared his throat, swallowed. He seemed powerless to take his attention from Orne's mouth.

"My guess," said Orne, "is that about thirty or forty years ago, the conspirators first began breeding a few males, grooming them for really choice top positions. Other Nathian males—the accidents where sex-control failed—they never learned about the conspiracy. These new ones were full-fledged members. That's what I'd have been if I'd panned out as expected."

Polly glared at him, looked back at her hands.

"That part of the plan was scheduled to come to a head with this election," said Orne. "If they pulled this one off, they could move in more boldly."

"You're in way over your head, boy," growled Polly. "You're too late to do anything about us!"

"We'll see about that!" barked Spencer. He seemed to have regained his self-control. "A little publicity in the right places . . . some key arrests and—"

"No," said Orne. "She's right. It's too late for that. It was probably too late a hundred years ago. These dames were too firmly entrenched even then."

Stetson straightened away from the wall, smiled grimly at Orne. He seemed to be understanding a point that the others were missing. Diana still glared at Orne. Polly kept her attention on her hands, the tight smile playing about her lips.

"These women probably control one out of three of the top positions in the League," said Orne. "Maybe more. Think, admiral . . . think what would happen if you exposed this thing. There'd be secessions, riots, sub-governments would topple, the central government would be torn by suspicions and battles. What breeds in that atmosphere?" He shook his head. "The Rim War would seem like a picnic!"

"We can't just ignore this!" barked Spencer. He stiffened, glared at Orne.

"We can and we will," said Orne. "No choice."

Polly looked up, studied Orne's face. Diana looked confused.

"Once a Nathian, always a Nathian, eh?" snarled Spencer.

"There's no such thing," said Orne. "Five hundred years' cross-breeding with other races saw to that. There's merely a secret society of astute political scientists." He smiled wryly at Polly, glanced back at Spencer. "Think of your own wife, sir. In all honesty, would you be ComGO today if she hadn't guided your career?"

Spencer's face darkened. He drew in his chin, tried to stare Orne down, failed. Presently, he chuckled wryly.

"Sobie is beginning to come to his senses," said Polly. "You're about through, son."

"Don't underestimate your future son-in-law," said Orne.

"Hah!" barked Diana. "I ***hate*** you, Lewis Orne!"

"You'll get over that," said Orne mildly.

"Ohhhhhh!" Diana quivered with fury.

"My major point is this," said Orne. "Government is a dubious glory. You pay for your power and wealth by balancing on the sharp edge of the blade. That great amorphous thing out there—the people—has turned and swallowed many governments. The only way you can stay in power is by giving *good* government. Otherwise—sooner or later—your turn comes. I can remember my mother making that point. It's one of the things that stuck with me." He frowned. "My objection to politics is the compromises you have to make to get elected!"

Stetson moved out from the wall. "It's pretty clear," he said. Heads turned toward him. "To stay in power, the Nathians had to give us a fairly good government. On the other hand, if we expose them, we give a bunch of political amateurs—every fanatic and power-hungry demagogue in the galaxy—just the weapon they need to sweep them into office."

"After that: chaos," said Orne. "So we let the Nathians continue . . . with two minor alterations."

"We alter nothing," said Polly. "It occurs to me, Lewis, that you don't have a leg to stand on. You have me, but you'll get nothing out of me. The rest of the organization can go on without me. You don't dare expose us. We hold the whip hand!"

"The I-A could have ninety per cent of your organization in custody inside of ten days," said Orne.

"You couldn't find them!" snapped Polly.

"How?" asked Stetson.

"Nomads," said Orne. "This house is a glorified tent. Men on the outside, women on the inside. Look for inner courtyard construction. It's instinctive with Nathian blood. Add to that, an inclination for odd musical instruments—the kaithra, the tambour, the oboe—*all* nomad instruments. Add to that, female dominance of the family—an odd twist on the nomad heritage, but not completely unique. Check for predominance of female offspring. Dig into political background. We'll miss damn' few!"

Polly just stared at him, mouth open.

Spencer said: "Things are moving too fast for me. I know just one thing: I'm dedicated to preventing another Rim War. If I have to jail every last one of—"

"An hour after this conspiracy became known, you wouldn't be in a position to jail anyone," said Orne. "The husband of a Nathian! You'd be in jail yourself or more likely dead at the hands of a mob!"

Spencer paled.

"What's your suggestion for compromise?" asked Polly.

"Number one: the I-A gets veto power on any candidate you put up," said Orne. "Number two: you can never hold more than two thirds of the top offices."

"Who in the I-A vetoes our candidates?" asked Polly.

"Admiral Spencer, Stet, myself . . . anyone else we deem trustworthy," said Orne.

"You think you're a god or something?" demanded Polly.

"No more than you do," said Orne. "This is what's known as a check and balance system. You cut the pie. We get first choice on which pieces to take."

There was a protracted silence; then Spencer said: "It doesn't seem right just to—"

"No political compromise is ever totally right," said Polly. "You keep patching up things that always have flaws in them. That's how government is." She chuckled, looked up at Orne. "All right, Lewis. We accept." She glanced at Spencer, who shrugged, nodded glumly. Polly looked back at Orne. "Just answer me one question: How'd you know I was boss lady?"

"Easy," said Orne. "The records we found said the . . . Nathian (he'd almost said 'traitor') family on Marak was coded as *'The Head.'* Your name, Polly, contains the ancient word *'Poll'* which means *head."*

Polly looked at Stetson. "Is he always that sharp?"

"Every time," said Stetson.

"If you want to go into politics, Lewis," said Polly, "I'd be delighted to—"

"I'm already in politics as far as I want to be," growled Orne. "What I really want is to settle down with Di, catch up on some of the living I've missed."

Diana stiffened. "I never want to see, hear *from* or hear *of* Mr. Lewis Orne ever again!" she said. "That is final, emphatically final!"

Orne's shoulders drooped. He turned away, stumbled, and abruptly collapsed full length on the thick carpets. There was a collective gasp behind him.

Stetson barked: "Call a doctor! They warned me at the hospital he was still hanging on a thin thread!"

There was the sound of Polly's heavy footsteps running toward the hall.

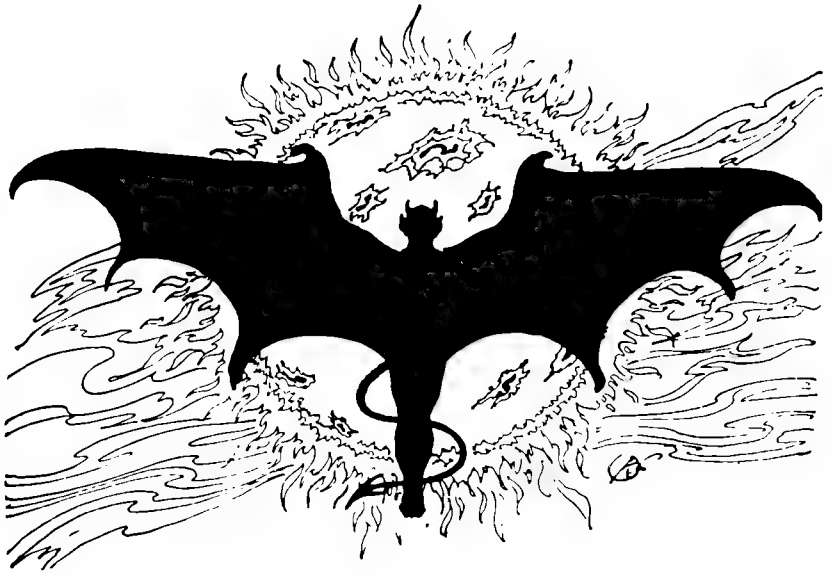
"Lew!" It was Diana's voice. She dropped to her knees beside him, soft hands fumbling at his neck, his head.

"Turn him over and loosen his collar!" snapped Spencer. "Give him air!"

Gently, they turned Orne onto his back. He looked pale, Diana loosed his collar, buried her face against his neck. "Oh, Lew, I'm sorry," she sobbed. "I didn't mean it! Please, Lew . . . please don't die! Please!"

Orne opened his eyes, looked up at Spencer and Stetson. There was the sound of Polly's voice talking rapidly on the phone in the hall. He could feel Diana's cheek warm against his neck, the dampness of her tears. Slowly, deliberately, Orne winked at the two men.

THE END



DISTURBING SUN

BY PHILIP LATHAM

This, be it understood, is fiction—nothing but fiction—and not, under any circumstances, to be considered as having any truth whatever to it. It's obviously utterly impossible . . . isn't it?

Illustrated by Freas

AN INTERVIEW *with Dr. I. M. Niemand, Director of the Psychophysical Institute of Solar and Terrestrial Relations, Camarillo, California.*

In the closing days of December, 1957, at the meeting of the American Association for the Advancement of Science in New York, Dr. Niemand delivered a paper entitled simply, "On the Nature of the Solar S-Regions." Owing to its unassuming title the startling implications contained in the paper were completely overlooked by the press. These implications are discussed here in an exclusive interview with Dr. Niemand by Philip Latham.

LATHAM. Dr. Niemand, what would you say is your main job?

NIEMAND. I suppose you might say my main job today is to find out all I can between activity on the Sun and various forms of activity on the Earth.

LATHAM. What do you mean by activity on the Sun?

NIEMAND. Well, a sunspot is a form of solar activity.

LATHAM. Just what is a sunspot?

NIEMAND. I'm afraid I can't say just what a sunspot is. I can only describe it. A sunspot is a region on the Sun that is cooler than its surroundings. That's why it looks dark. It isn't so hot. Therefore not so bright.

LATHAM. Isn't it true that the number of spots on the Sun rises and falls in a cycle of eleven years?

NIEMAND. The number of spots on the Sun rises and falls in a cycle of *about* eleven years. That word *about* makes quite a difference.

LATHAM. In what way?

NIEMAND. It means you can only approximately predict the future course of sunspot activity. Sunspots are mighty treacherous things.

LATHAM. Haven't there been a great many correlations announced between sunspots and various effects on the Earth?

NIEMAND. Scores of them.

LATHAM. What is your opinion of these correlations?

NIEMAND. Pure bosh in most cases.

LATHAM. But some are valid?

NIEMAND. A few. There is unquestionably a correlation between sunspots and disturbances of the Earth's magnetic field . . . radio fadeouts . . . auroras . . . things like that.

LATHAM. Now, Dr. Niemand, I understand that you have been investigating solar and terrestrial relationships along rather unorthodox lines.

NIEMAND. Yes, I suppose some people would say so.

LATHAM. You have broken new ground?

NIEMAND. That's true.

LATHAM. In what way have your investigations differed from those of others?

NIEMAND. I think our biggest advance was the discovery that sunspots themselves are not the direct cause of the disturbances we have

been studying on the Earth. It's something like the eruptions in rubeola. Attention is concentrated on the bright red papules because they're such a conspicuous symptom of the disease. Whereas the real cause is an invisible filterable virus. In the solar case it turned out to be these S-Regions.

LATHAM. Why S-Regions?

NIEMAND. We had to call them something. Named after the Sun, I suppose.

LATHAM. You say an S-Region is invisible?

NIEMAND. It is quite invisible to the eye but readily detected by suitable instrumental methods. It is extremely doubtful, however, if the radiation we detect is the actual cause of the disturbing effects observed.

LATHAM. Just what are these effects?

NIEMAND. Well, they're common enough, goodness knows. As old as the world, in fact. Yet strangely enough it's hard to describe them in exact terms.

LATHAM. Can you give us a general idea?

NIEMAND. I'll try. Let's see . . . remember that speech from "Julius Caesar" where Cassius is bewailing the evil times that beset ancient Rome? I believe it went like this: "The fault, dear Brutus, is not in our stars but in ourselves that we are underlings."

LATHAM. I'm afraid I don't see—

NIEMAND. Well, Shakespeare would have been nearer the truth if he had put it the other way around. "The fault, dear Brutus, is not in ourselves but in our stars" or better "in the Sun."

LATHAM. In the Sun?

NIEMAND. That's right, in the Sun. I suppose the oldest problem in the world is the origin of human evil. Philosophers have wrestled with it ever since the days of Job. And like Job they have usually given up in despair, convinced that the origin of evil is too deep for the human mind to solve. Generally they have concluded that man is inherently wicked and sinful and that is the end of it. Now for the first time science has thrown new light on this subject.

LATHAM. How is that?

NIEMAND. Consider the record of history. There are occasional periods when conditions are fairly calm and peaceful. Art and industry flourished. Man at last seemed to be making progress toward some higher goal. Then suddenly—*for no detectable reason*—conditions are reversed. Wars rage. People go mad. The world is plunged into an orgy of bloodshed and misery.

LATHAM. But weren't there reasons?

NIEMAND. What reasons?

LATHAM. Well, disputes over boundaries . . . economic rivalry . . . border incidents . . .

NIEMAND. Nonsense. Men always make some flimsy excuse for going to war. The truth of the matter is that men go to war because

they want to go to war. They can't help themselves. They are impelled by forces over which they have no control. By forces outside of themselves.

LATHAM. Those are broad, sweeping statements. Can't you be more specific?

NIEMAND. Perhaps I'd better go back to the beginning. Let me see . . . It all started back in March, 1955, when I started getting patients suffering from a complex of symptoms, such as profound mental depression, anxiety, insomnia, alternating with fits of violent rage and resentment against life and the world in general. These people were deeply disturbed. No doubt about that. Yet they were not psychotic and hardly more than mildly neurotic. Now every doctor gets a good many patients of this type. Such a syndrome is characteristic of menopausal women and some men during the climacteric, but these people failed to fit into this picture. They were married and single persons of both sexes and of all ages. They came from all walks of life. The onset of their attack was invariably sudden and with scarcely any warning. They would be going about their work feeling perfectly all right. Then in a minute the whole world was like some scene from a nightmare. A week or ten days later the attack would cease as mysteriously as it had come and they would be their old self again.

LATHAM. Aren't such attacks characteristic of the stress and strain of modern life?

NIEMAND. I'm afraid that old stress-and-strain theory has been badly overworked. Been hearing about it ever since I was a pre-med student at UCLA. Even as a boy I can remember my grandfather deploring the stress and strain of modern life when he was a country doctor practicing in Indiana. In my opinion one of the most valuable contributions anthropologists have made in recent years is the discovery that primitive man is afflicted with essentially the same neurotic conditions as those of us who live a so-called civilized life. They have found savages displaying every symptom of a nervous breakdown among the mountain tribes of the Elgonyi and the Aruntas of Australia. No, Mr. Latham, it's time the stress-and-strain theory was relegated to the junk pile along with demoniac possession and blood letting.

LATHAM. You must have done something for your patients—

NIEMAND. A doctor must always do something for the patients who come to his office seeking help. First I gave them a thorough physical examinatoin. I turned up some minor ailments—a slight heart murmur or a trace of albumin in the urine—but nothing of any significance. On the whole they were a remarkably healthy bunch of individuals, much more so than an average sample of the population. Then I made a searching inquiry into their personal life. Here again I drew a blank. They had no particular financial worries. Their sex life was gen-

erally satisfactory. There was no history of mental illness in the family. In fact, the only thing that seemed to be the matter with them was that there were times when they felt like hell.

LATHAM. I suppose you tried tranquilizers?

NIEMAND. Oh, yes. In a few cases in which I tried tranquilizing pills of the meprobamate type there was some slight improvement. I want to emphasize, however, that I do not believe in prescribing shotgun remedies for a patient. To my way of thinking it is a lazy slipshod way of carrying on the practice of medicine. The only thing for which I do give myself credit was that I asked my patients to keep a detailed record of their symptoms taking special care to note the time of exacerbation—increase in the severity of the symptoms—as accurately as possible.

LATHAM. And this gave you a clue?

NIEMAND. It was the beginning. In most instances patients reported the attack struck with almost the impact of a physical blow. The prodromal symptoms were usually slight . . . a sudden feeling of uneasiness and guilt . . . hot and cold flashes . . . dizziness . . . double vision. Then this ghastly sense of depression coupled with a blind insensate rage at life. One man said he felt as if the world were closing in on him. Another that he felt the people around him were plotting his destruction. One housewife made her husband lock her in her room for fear she would injure the children. I pored over these case histories for a long time getting absolutely nowhere. Then finally a pattern began to emerge.

LATHAM. What sort of pattern?

NIEMAND. The first thing that struck me was that the attacks all occurred during the daytime, between the hours of about seven in the morning and five in the evening. Then there were these coincidences—

LATHAM. Coincidences?

NIEMAND. Total strangers miles apart were stricken at almost the same moment. At first I thought nothing of it but as my records accumulated I became convinced it could not be attributed to chance. A mathematical analysis showed the number of coincidences followed a Poisson distribution very closely. I couldn't possibly see what daylight had to do with it. There is some evidence that mental patients are most disturbed around the time of full moon, but a search of medical literature failed to reveal any connection with the Sun.

LATHAM. What did you do?

NIEMAND. Naturally I said nothing of this to my patients. I did, however, take pains to impress upon them the necessity of keeping an exact record of the onset of an attack. The better records they kept the more conclusive was the evidence. Men and women were experiencing nearly simultaneous attacks of rage and depression all over southern California, which was as far as my practice ex-

tended. One day it occurred to me: if people a few miles apart could be stricken simultaneously, why not people hundreds or thousands of miles apart? It was this idea that prompted me to get in touch with an old colleague of mine I had known at UC medical school, Dr. Max Hillyard, who was in practice in Utica, New York.

LATHAM. With what result?

NIEMAND. I was afraid the result would be that my old roommate would think I had gone completely crazy. Imagine my surprise and gratification on receiving an answer by return mail to the effect that he also had been getting an increasing number of patients suffering with the same identical symptoms as my own. Furthermore, upon exchanging records we *did* find that in many cases patients three thousand miles apart had been stricken simultaneously—

LATHAM. Just a minute. I would like to know how you define "simultaneous."

NIEMAND. We say an attack is simultaneous when one occurred on the east coast, for example, not earlier or later than five minutes of an attack on the west coast. That is about as close as you can hope to time a subjective effect of this nature. And now another fact emerged which gave us another clue.

LATHAM. Which was?

NIEMAND. In every case of a simultaneous attack the Sun was shining at both New York and California.

LATHAM. You mean if it was cloudy—

NIEMAND. No, no. The weather had nothing to do with it. I mean the Sun had to be above the horizon at both places. A person might undergo an attack soon after sunrise in New York but there would be no corresponding record of an attack in California where it was still dark. Conversely, a person might be stricken late in the afternoon in California without a corresponding attack in New York where the Sun had set. Dr. Hillyard and I had been searching desperately for a clue. We had both noticed that the attacks occurred only during the daylight hours but this had not seemed especially significant. Here we had evidence pointing directly to the source of trouble. It must have some connection with the Sun.

LATHAM. That must have had you badly puzzled at first.

NIEMAND. It certainly did. It looked as if we were headed back to the Middle Ages when astrology and medicine went hand in hand. But since it was our only lead we had no other choice but to follow it regardless of the consequences. Here luck played somewhat of a part, for Hillyard happened to have a contact that proved invaluable to us. Several years before Hillyard had gotten to know a young astrophysicist, Henry Middletown, who had come to him suffering from a severe case of myositis in the arms and shoulders. Hillyard had been able to effect a complete cure for which the boy

was very grateful, and they had kept up a desultory correspondence. Middletown was now specializing in radio astronomy at the government's new solar observatory on Turtle Back Mountain in Arizona. If it had not been for Middletown's help I'm afraid our investigation would never have gotten past the clinical stage.

LATHAM. In what way was Middletown of assistance?

NIEMAND. It was the old case of workers in one field of science being completely ignorant of what was going on in another field. Someday we will have to establish a clearing house in science instead of keeping it in tight little compartments as we do at present. Well, Hillyard and I packed up for Arizona with considerable misgivings. We were afraid Middletown wouldn't take our findings seriously but somewhat to our surprise he heard our story with the closest attention. I guess astronomers have gotten so used to hearing from flying saucer enthusiasts and science-fiction addicts that nothing surprises them any more. When we had finished he asked to see our records. Hillyard had them all set down for easy numerical tabulation. Middletown went to work with scarcely a word. Within an hour he had produced a chart that was simply astounding.

LATHAM. Can you describe this chart for us?

NIEMAND. It was really quite simple. But if it had not been for Middletown's experience in charting other solar phenomena it would never have occurred to us to do it. First, he laid out a series of about thirty squares horizontally across a sheet of graph paper. He dated these beginning March 1, 1955, when our records began. In each square he put a number from 1 to 10 that was a rough index of the number and intensity of the attacks reported on that day. Then he laid out another horizontal row below the first one dated twenty-seven days later. That is, the square under March 1st in the top row was dated March 28th in the row below it. He filled in the chart until he had an array of dozens of rows that included all our data down to May, 1958.

When Middletown had finished it was easy to see that the squares of highest index number did not fall at random on the chart. Instead they fell in slightly slanting parallel series so that you could draw straight lines down through them. The connection with the Sun was obvious.

LATHAM. In what way?

NIEMAND. Why, because twenty-seven days is about the synodic period of solar rotation. That is, if you see a large spot at the center of the Sun's disk today, there is a good chance if it survives that you will see it at the same place twenty-seven days later. But that night Middletown produced another chart that showed the connection with the Sun in a way that was even more convincing.

LATHAM. How was that?

NIEMAND. I said that the lines drawn down through the days of

greatest mental disturbance slanted slightly. On this second chart the squares were dated under one another not at intervals of twenty-seven days, but at intervals of twenty-seven point three days.

LATHAM. Why is that so important?

NIEMAND. Because the average period of solar rotation in the sunspot zone is not twenty-seven days but twenty-seven point three days. And on this chart the lines did not slant but went vertically downward. The correlation with the synodic rotation of the Sun was practically perfect.

LATHAM. But how did you get onto the S-Regions?

NIEMAND. Middletown was immediately struck by the resemblance between the chart of mental disturbance and one he had been plotting over the years from his radio observations. Now when he compared the two charts the resemblance between the two was unmistakable. The pattern shown by the chart of mental disturbance correponded in a striking way with the solar chart but with this difference. The disturbances on the Earth started two days later on the average than the disturbances due to the S-Regions on the Sun. In other words, there was a lag of about forty-eight hours between the two. But otherwise they were almost identical.

LATHAM. But if these S-Regions of Middletown's are invisible how could he detect them?

NIEMAND. The S-Regions are invisible to the eye through an *optical* telescope, but are detected with ease by a *radio* telescope. Middletown had discovered them when he was a graduate student working on radio astronomy in Australia, and he had followed up his researches with the more powerful equipment at Turtle Back Mountain. The formation of an S-Region is heralded by a long series of bursts of a few seconds duration, when the radiation may increase up to several thousand times that of the background intensity. These noise storms have been recorded simultaneously on wavelengths of from one to fifteen meters, which so far is the upper limit of the observations. In a few instances, however, intense bursts have also been detected down to fifty cm.

LATHAM. I believe you said the periods of mental disturbance last for about ten or twelve days. How does that tie-in with the S-Regions?

NIEMAND. Very closely. You see it takes about twelve days for an S-Region to pass across the face of the Sun, since the synodic rotation is twenty-seven point three days.

LATHAM. I should think it would be nearer thirteen or fourteen days.

NIEMAND. Apparently an S-Region is not particularly effective when it is just coming on or just going off the disk of the Sun.

LATHAM. Are the S-Regions associated with sunspots?

NIEMAND. They are connected in this way: that sunspot activity and

S-Region activity certainly go together. The more sunspots the more violent and intense is the S-Region activity. But there is not a one-to-one correspondence between sunspots and S-Regions. That is, you cannot connect a particular sunspot group with a particular S-Region. The same thing is true of sunspots and magnetic storms.

LATHAM. How do you account for this?

NIEMAND. We don't account for it.

LATHAM. What other properties of the S-Regions have you discovered?

NIEMAND. Middletown says that the radio waves emanating from them are strongly circularly polarized. Moreover, the sense of rotation remains constant while one is passing across the Sun. If the magnetic field associated with an S-Region extends into the high solar corona through which the rays pass, then the sense of rotation corresponds to the ordinary ray of the magneto-ionic theory.

LATHAM. Does this mean that the mental disturbances arise from some form of electromagnetic radiation?

NIEMAND. We doubt it. As I said before, the charts show a lag of about forty-eight hours between the development of an S-Region and the onset of mental disturbance. This indicates that the malignant energy emanating from an S-Region consists of some highly penetrating form of corpuscular radiation, as yet unidentified.*

LATHAM. A question that puzzles me is why some people are affected by the S-Regions while others are not.

NIEMAND. Our latest results indicate that probably *no one* is completely immune. All are affected in *some* degree. Just why some should be affected so much more than others is still a matter of speculation.

LATHAM. How long does an S-Region last?

NIEMAND. An S-Region may have a lifetime of from three to perhaps a dozen solar rotations. Then it dies out and for a time we are free from this malignant radiation. Then a new region develops in perhaps an entirely different region of the Sun. Sometimes there may be several different S-Regions all going at once.

LATHAM. Why were not the S-Regions discovered long ago?

NIEMAND. Because the radio exploration of the Sun only began since the end of World War II.

LATHAM. How does it happen that you only got patients suffering from S-radiation since about 1955?

NIEMAND. I think we did get such patients previously but not in large enough numbers to attract attention. Also the present sunspot

*Middletown believes that the intense radiation recently discovered from information derived from Explorer I and III has no connection with the corpuscular S-radiation.

cycle started its rise to maximum about 1954.

LATHAM. Is there no way of escaping the S-radiation?

NIEMAND. I'm afraid the only sure way is to keep on the unilluminated side of the Earth which is rather difficult to do. Apparently the corpuscular beam from an S-Region is several degrees wide and not very sharply defined, since its effects are felt simultaneously over the entire continent. Hillyard and Middletown are working on some form of shielding device but so far without success.

LATHAM. What is the present state of S-Region activity?

NIEMAND. At the present moment there happens to be no S-Region activity on the Sun. But a new one may develop at any time. Also, the outlook for a decrease in activity is not very favorable. Sunspot activity continues at a high level and is steadily mounting in violence. The last sunspot cycle had the highest maximum of any since 1780, but the present cycle bids fair to set an all time record.

LATHAM. And so you believe that the S-Regions are the cause of most of the present trouble in the world. That it is not ourselves but something outside ourselves—

NIEMAND. That is the logical outcome of our investigation. We are controlled and swayed by forces which in many cases we are powerless to resist.

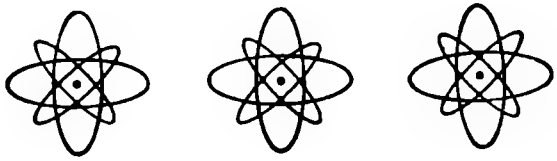
LATHAM. Could we not be warned of the presence of an S-Region?

NIEMAND. The trouble is they seem to develop at random on the Sun. I'm afraid any warning system would be worse than useless. We would be crying WOLF! all the time.

LATHAM. How may a person who is not particularly susceptible to this malignant radiation know that one of these regions is active?

NIEMAND. If you have a feeling of restlessness and anxiety, if you are unable to concentrate, if you feel suddenly depressed and discouraged about yourself, or are filled with resentment toward the world, then you may be pretty sure that an S-Region is passing across the face of the Sun. Keep a tight rein on yourself. For it seems that evil will always be with us . . . as long as the Sun shall continue to shine upon this little world.

THE END



HEX...

BY LARRY M. HARRIS

Illustrated by Summers

She was a young, enthusiastic worker for the Welfare Department. She liked helping people...only she really-but-good helped them!

HE office wasn't very bright or sunny, but that didn't matter. In the first place, if Gloria really wanted sun, she could always get some by tuning in on a mind outside, someone walking the streets of downtown New York. And, in the second place, the weather wasn't important; what mattered was how you felt inside. Gloria took off her beret and crammed it into a drawer of her desk. She sat down, feeling perfectly ready for work, her bright eyes sparkling and her whole twenty-one-year-old body eager for the demands of the day.

It was ten minutes to nine in the morning.

On the desk was a mass of reports and folders. Gloria looked at them and sighed; the cleaning woman, she thought, must have upset everything again.

But neatness was the keystone of good, efficient work in any field. Gloria set to work rearranging everything in a proper order. The job took her nearly twenty minutes and, by the time she was finished, the office was full.

Mr. Fredericksohn hadn't arrived yet, naturally. He always came in around nine-thirty. But all of the case workers were ready for the day's work. Gloria looked around the office at them, beaming. It was good to be able to help people and to know that what you were doing was right.

She remembered wondering how you could be sure you were right about somebody else, if you couldn't read minds. But, then, there were rules to go by, and all of the fine classes and textbooks that a social case worker had to have. If you paid attention, and if you really wanted to help people, Gloria supposed, it was all right. Certainly everything in her own office seemed to run smoothly.

Not that she would ever do anything about another worker, no matter what. Gloria remembered what Mr. Greystone, a teacher of hers had said, a year or so before: "Never interfere with the case load of another worker. Your sole job is represented by your own case load."

That was good advice, Gloria thought. And, anyhow, her assistance didn't seem to be too badly needed, among the others. She had quite enough to do in taking care of her own clients.

And here she was, wasting time! She shook her head and breathed a little sigh, and began on the first folder.

Name: GIRONDE, JOSE R.

Name: Wladek, Mrs. Marie Posner. She was no fool. She knew about the reports they had to make, and the sheets covered with all the details of your very own private life; she had seen them on a desk when she had come to keep her appointment. Mrs. Wladek was her name, and that was how the report would look, with her name all reversed in order right on the top. And underneath that there would be her address and her story, all that she had told the case workers,

set right down in black and white for anybody at all to read.

When you were poor, you had no privacy, and that was the truth. Mrs. Wladek shook her head. A poor old woman, that was all that she was, and privacy was a luxury not to be asked for. Who said the United States was different from the old country?

Cossacks, she thought. In the old country, one still heard the old stories, the streets paved with gold and the food waiting for such as yourself; oh, the war had not changed that in the least. Now the Voice of America was heard in the old country—she had a letter, smuggled out, from her own second-cousin Marfa, telling her all about the Voice of America—and that was only another trap. They wanted to make you leave your own land and your own country, and come far away to America and to the United States, so that you would have no friends and you would be defenseless.

Then you could not help yourself. Then you had to do what they asked you, because there was no other way to eat. There were no friends to feed you dinners or to allow you room in a good house. No. There was only the case worker with her reports that took the last bit of privacy away from an old woman, and left her with barely enough money to remain alive.

"Get a job," they said. "Tell your son to get a job. He is young and strong and healthy."

Certainly! But the United States is not a place in which to work. The United States will give you money. This fact she had from her uncle Bedrich, who had come to the new country years before, and who had written many letters back to his family before his death in an accident.

Should she, then, work? Should her own son, her own Rudi, be forced to work out his time of youth? Surely a little privacy was a small enough thing to surrender for freedom and ease?

But that they should ask for you to surrender it . . . *Cossacks!*

Mrs. Wladek stood up carefully—her old bones creaked, and she could feel them creaking. She looked around the tiny living room, covered with dust. One should have the money to hire a maid. But the case workers had never understood that. Young things, of course they knew nothing of the troubles facing an old woman.

An old woman needed a maid.

She laughed briefly to herself at the idea, and realized at the same time that she had been hiding her own thoughts from herself.

Today was her appointment day, and the new one would be there, blond and young and smiling at her with the innocent face. There was something wrong with the new one; she could see that. In the old country there were stories—

Are you, Marie Wladek, afraid of a young woman? Does your age count for nothing? Does your experience and knowledge count for nothing?

And yet, she had to admit to herself that she was afraid, and that she was afraid of giving a name to her fear. Only a fool could mock at the stories told in the old country, and Mrs. Wladek knew of such a fool; he had died with mockery on his lips, but all had known what had killed him.

Can you not battle a young woman, and win, Marie Wladek?

And yet the young woman had something strange about her, and Mrs. Wladek remembered the old stories, and thought of witchcraft.

Who could fight witchcraft?

Even when the witch was a young girl without experience, and with an innocent face and blond hair—

Mrs. Wladek looked at the mantel clock she had brought with her across the ocean. It told perfect time; it was as good as everything from the old country. Here in America they had no such clocks. Here everything ran by electricity, and when you touched it there was a shock, which was unnatural.

The old clock told the time: nine-thirty. Appointment hour was approaching. Mrs. Wladek did not want to leave the house. She did not want to face this new case worker.

But, all the same, one had to have money to live.

That they should force an old woman to travel across the city and to speak with a girl, by appointment, solely in order to get the money which should have been hers by right!

Cossacks! Monsters!

Name: GIRONDE, JOSE R.
Address: 1440 Hamilton Street
Borough: New York
Phone: None
Complaint: Client is over fifty, without work for eight months—last worked in October—due to recurrent difficulty regarding back. Sole support wife and wife's sister. One child (Ramon, 27), living on West Coast. Preliminary inquiries fail to locate child.
Remarks: NPH. Examination needed. Is back injury chronic?

There was a great deal of paper work needed, Gloria realized. At first she hadn't liked the paper work at all, but she could see now how necessary it was. After all, everybody wasn't like her; the other workers, she knew, didn't have her particular talent, and they had to write things down for fear they'd forget.

Sometimes Gloria felt very sorry for the other case workers. But she knew they were doing their very best, and they were, after all, helping people. That was the only important thing: to help people, to make them better members of society.

Now, Jose Gironde's back injury was certainly chronic. Gloria tried to remember the medical term for it: it was something to do with a lordosis. She'd paid no attention to that, since she had been trying to fix up the back instead.

But now a doctor had to be called, and a thorough examination had to be given, all so that the records would show what Gloria knew already. A case worker couldn't fill

out a medical report; you had to be a doctor to do that.

And it didn't matter, Gloria knew, if you had all the information at your fingertips, and even knew more than the doctor. (Gloria could have cured Jose Gironde's back easily; a doctor couldn't do that.) Examination was the doctor's job.

It was like being a member of a team, Gloria thought.

That felt good.

She got out the list of doctors which all the case workers used, and followed it down with her finger. Dr. Willmarth was free, she knew, on Thursday morning at eleven.

Luckily, Jose Gironde was free at the same hour. She made a note to call the doctor and make an appointment, and to clear the appointment with Jose Gironde, and made a duplicate note on the report sheet.

That would take care of that.

The paper work, after all, wasn't so very hard. All she had to do now was to make the actual calls, and then wait for the written result of the examination. When that had come through, she would be able to recommend Jose Gironde for permanent relief, as was obviously indicated in his case.

The back injury could not be corrected by medical science. And if Gloria were to correct it—

"Your job as a case worker is clearly defined," a teacher had said. "Meddling in another's province, without the permission of your supervisor, is always uncalled-for."

In other words, Gloria thought, the *status quo* has to be kept. And that, too, made sense when you thought about it.

She looked up to see Harold Meedy smiling across the room at her. She smiled back, very briefly, and went back to her own work.

"Interpersonal relationships within the office framework," a teacher—Mr. Greystone?—had said, "are fraught with danger, and should be handled with the greatest care."

If Harold Meedy wanted to get acquainted with her, that was his affair. She didn't feel that she could conscientiously encourage him in the slightest. Not only was he a fellow worker, which made the whole situation more complicated than it would ordinarily have been, but he was a small pudgy man with pimples and an earnest expression. He looked as if he would be a bore, and a difficult person to get rid of.

He was.

Gloria just didn't think he was exactly her type.

And if he went on trying, she thought regretfully, she would be forced to do something about it. Of course, Meedy would never know the difference, but even so, Gloria didn't like to do any unnecessary work. Changing someone's mind was a delicate job, and a responsible one, not to be undertaken for a small motive.

Even if the person never knew his mind had been changed at all—

Mrs. Wladek, in her apartment, shrugged on an old coat and com-

pressed her lips with weariness. Appointment time was near, and a person had to be punctual.

Even when a person was going to see a young girl who was strange and frightening, and who might do—

Well, don't be a foolish old woman, Mrs. Wladek told herself. Rudi would have told her that. But Rudi was out somewhere, with a girl or with some of his friends, like a good American boy.

Don't be a foolish old woman, Rudi would have said.

But Mrs. Wladek was frightened.

It was nearly ten o'clock, Gloria noticed. She did not feel in the least tired; she was still eager and ready for work. She decided she had time for one more folder before the first of her appointments arrived.

She reached out for it and saw Mr. Fredericksohn coming in the door. He smiled at her, a tall, white-haired man with a square face, who radiated enormous efficiency and a certain distant friendliness.

She did not say hello, but merely nodded. Mr. Fredericksohn liked to take the initiative himself, in all relationships.

"How are we doing today?" he said, peering over her shoulder.

"Fine," she said happily. "Just fine."

Mr. Fredericksohn grunted. "I see Mrs. Wladek's on your schedule today."

"That's right," she said.

"Just do what you can," he said. "You've seen her before, haven't you?"

She nodded. "Once. Last week."

"She's a—problem," he said. Mr. Fredericksohn was always a little chary of saying anything that might be construed as derogatory to a client, even in the privacy of professional conversation.

"I'm sure we'll be able to work things out," Gloria said.

"Well," Mr. Fredericksohn said, and paused. Then he nodded. "You do what you can," he said. His voice sounded doubtful.

She beamed up at him. "I certainly will," she said with enthusiasm.

Mr. Fredericksohn nodded and muttered something, and went on by.

Gloria smiled. Oh, she was going to show Mr. Fredericksohn, all right! He just wasn't sure she could handle Mrs. Wladek—and the old woman certainly did represent a problem. Her folder was full of notations by case worker after case worker. But Gloria's smile broadened just a trifle.

My goodness, everything was going to be all right. She was sure Mr. Fredericksohn would be happy with her work.

Though the important thing wasn't her own success, but the people themselves. If you could help them to be bright, and happy, and successful, then that was the best job in the world.

And she could.

My goodness, yes.

Mrs. Wladek looked at the door

for a long time without opening it. She didn't want to go in—certainly not. But there was her appointment, and money was needed; she had no choice. The cossacks of America had forced her to this pass, and she was an old woman; what could she do? Fight them?

One had to give in.

She reached for the doorknob and turned it and opened the door.

There were all the desks, and the men and women working. And near the far corner, on the left, the girl sat studying a sheet of paper. Mrs. Wladek looked at the blond hair and the pretty face and the slight figure, and shivered.

But she had no choice; she went across the room and when she had almost reached the desk the girl said: "Good morning, Mrs. Wladek."

How had she known? Mrs. Wladek had made no sound in walking to the desk. Yet the girl had known someone was there, and who that someone was, before her head had been raised. Truly, the girl was frightening.

Mrs. Wladek eased herself, feeling her bones creak, into a chair at the side of the desk. She said nothing.

"How are things going?" the girl said in her pleasant smooth voice.

"I am fine," Mrs. Wladek said deliberately. She did not inquire about the girl's health. That would show her; that impoliteness would show her what an old woman thought of her!

"That's good," the girl said. "That's very good. And how is Rudi?"

"Rudi is my son," Mrs. Wladek said.

"I know that," the girl said, and smiled. "We met last week, don't you remember?"

"I remember you," Mrs. Wladek said. Then, grudgingly, she added: "Rudi is the same. He is fine."

"That's fine," the girl said. "And has he found a job yet?"

Here it was necessary to lie, Mrs. Wladek knew. One could not say that Rudi did not look for work. One had to say: "Work is difficult to find. He tries, but there is no job."

"And how about yourself?" the girl said.

"I am an old woman," Mrs. Wladek said. "Who would hire an old woman?"

The girl nodded. "It's been a long time since your husband died," she said.

"In an accident with an automobile," Mrs. Wladek said. "I remember that time. It is sad to think of."

"And Rudi hasn't found any work in all that time," the girl said.

"He looks hard," Mrs. Wladek said earnestly. This was a game that had to be played, she knew, a conversation that started and finished each time she came for an appointment. "He looks but work is difficult to find," she said.

"I understand," the girl said. "But I'm sure you and Rudi will both find work soon." She paused and her eyes closed.

Mrs. Wladek felt something happen.

It was . . . she felt . . . a stirring, a changing—

She stood up suddenly and the chair clattered, balanced and rocked back upright. "What are you doing?"

"Doing?" the girl said.

"I go to look for work," Mrs. Wladek said. "You make me want to look for work!"

"That's fine, Mrs. Wladek," the girl said. "That's just fine."

"But I want to look for work!" Mrs. Wladek said, horrified. "What do you do to me?"

The girl only smiled.

Mrs. Wladek spun and ran for the door, her eyes wide; but she collided with a desk and backed off, and then managed to find her way. The door banged behind her.

Gloria sat at her desk smiling, filled with satisfaction. Of course, a reaction like Mrs. Wladek's was only to be expected, but when it was over she would be looking for work.

Gloria released the little doll she had held throughout the interview and let it fall back, out of sight, into her desk drawer. The doll was shaped into a vague female likeness.

She didn't need it now.

Her work was done.

Mrs. Wladek was going to look for work, and that would adjust her to the world. She would be a functioning member of society now, and it would do her a lot of good. Rudi, too— Gloria considered Rudi. There was another doll in the drawer, a male, and after a few seconds she put her hand in the drawer and fished around until she had found it.

She turned it slowly, feeling for the son, until at last she had made contact.

There.

He was talking with some friends; it would not be hard. She concentrated, and at the same time she heard him talking:

"So look, here's the way I see it. We got the Cobras on our necks, we got to get rid of them, right?"

Someone said: "Right, Rudi."

"So if we start a little rumble, very quiet so the cops don't figure what's going on, then we—"

A silence.

Someone said: "What's wrong, Rudi?"

"I don't know. Something. What am I doing just standing here?"

And someone said: "What do you mean?"

"I mean I ought to be out getting a job, man. Earning some bread for the old lady. Got to have money, got to have a job."

Someone said: "Hey, Rudi. Wait. What's the hurry?"

And Rudi had gone.

Gloria dropped the doll and closed the drawer, and sat back, smiling gently. It was wonderful to be able to help people.

It was just wonderful.

Find work. Find a job.
Go to the employment agency.
Start looking for work, right now.
Get a job.

It will be nice to have a steady job. Nice—

Somehow, Mrs. Wladek fought off the voices in her mind. It was so easy to succumb to them and to drift into the terrible things they wanted. Mrs. Wladek did not want them at all.

A job, indeed!

But it took effort, all the same, to concentrate on herself instead of the work, the job, the employment agency. It took effort to sit down on a bench in the park, near the building where the case workers were, and plan out the next step.

A witch, certainly. The girl was a witch and she had put a hex on Mrs. Wladek, and that hex had to be removed.

How?

Mrs. Wladek thought first of the old woman in the store.

Certainly a gypsy woman would be able to take off a hex. Mrs. Wladek remembered gypsies from the old country, laughing people with the strange gift, witches themselves but always available for a price—

The gypsy woman.

Mrs. Wladek stood up and began to walk toward the park's exit. She forced her legs to move, creaking, one step at a time, thinking to her-

self: *The gypsy woman, the gypsy woman, the gypsy woman*—and trying to ignore the voices in her head that went on and on:

It would be good to find a job.

Go right away to the employment agency.

Right away—

There were those who laughed—Marya Proderenska thought—and there would always be those who laughed, but that did not injure her; for scoffers she felt only a vast contempt. Had she not been shown in a dream that the power was hers? Had not each of her husbands, even the third who had contracted the fever and died with great suddenness in three weeks, admitted to her that she had a power beyond that of any normal woman? It was the power of vision and movement, the power of spell and incantation.

The others called it magic, though no gypsy would call it so.

Marya Proderenska sat quietly in the back room of the little shop and waited. A woman would come; she knew that, and the knowledge was another piece of her power, and a proof of it. Farther she could not see, but in the cloud of the future the woman was clear.

(What power Marya Proderenska had, a blond social worker had, too, and other people; she had never been able to clear her mind of her own superstitions enough to train the power or work very effectively with it. The power was sufficient for her.)

Marya Proderenska sighed. The power demanded its own responsibilities. She could not marry outside the clan into which she had been born. She could not be seen on certain days of every month. During those days many foods were forbidden her.

Thus the power worked, and thus she lived.

The woman would bring money for her, Marya knew. So she sat in the back of the shop and waited, and sighed, until the front door sighed open and Marie Wladek called: "Old woman, old woman!"

"Do you call me?" Marya said in her proud baritone.

"I call you, I call the gypsy woman."

Marya stood up and smoothed her old dress over the big-boned frame all of her husbands had admired. "Then come to me," she called.

Marie Wladek crept into the room, her eyes saucers of awe. To speak of witches was all very well, and a fresh-faced girl could give one fright; but here was the authority and power of witchcraft, in this woman with the fuzz of hair on her lip and the great trumpeting voice.

"I come for help," Mrs. Wladek said.

"I know why you have come," Marya Proderenska said. "You have a great trouble."

Mrs. Wladek nodded. "I am bewitched. A witch has placed a hex upon me, and I come to you to remove it."

There was a little silence. Then Marya Proderenska said: "The pow-

ers will not do work without payment."

Mrs. Wladek dug into her ancient beaded purse and found a crumpled dollar bill. She handed it over and the gypsy woman smiled and ducked her head.

"It is enough," she said.

Mrs. Wladek said: "Then you will help me?"

"I will help you," the gypsy woman said. "Tell me of this curse upon you."

"There is a voice in my mind," Mrs. Wladek said. "The voice tells me—even now it continues—to go to an employment agency, to accept work . . . and the voice is not of my making."

"Whose voice is this?" the gypsy woman said.

"It is my own voice," Mrs. Wladek said. "The voice is my own, but I did not tell it to speak. Inside my own head, I can hear my own voice as if someone else put it there."

"Ah," the gypsy woman said. "And who is the witch who has put this curse upon you?"

Mrs. Wladek sighed. "At the office of the social workers, there is one, a young woman. She has done this to me."

Marya Proderenska nodded. Her eyes closed.

Mrs. Wladek stared at the still figure without moving for a minute. Time stretched endlessly. The room was very quiet; Mrs. Wladek heard the continuing voice in her mind and felt fear.

Another minute ticked by.

At last the gypsy woman opened her eyes. "It is a strong curse," she said in a distant voice. "But I have erased it for you. I have taken the hex from you. Is it not so?"

"Taken the hex—" Mrs. Wladek shook her head. "Then why do I still hear the voice?"

"You still hear it?" The gypsy woman muttered under her breath. "Come back tomorrow. We work again."

"Tomorrow is a long time."

The gypsy woman closed her eyes for a second. "All right," she said, and snapped them open. "Four o'clock this afternoon."

"I will be here."

"It is a strong curse."

"You will help me," Mrs. Wladek said.

"I will help you," Marya Proderenska said.

But, after the old woman had left, Marya Proderenska sat alone and her face was troubled. The strength of the curse—she had felt it herself—was enormous. She did not know of any magician who had such power.

She listed over the members of her own clan in her mind, and became satisfied that none she knew was responsible. And yet, the strength of the curse argued real power; was it possible that a power existed within the city, and she did not know of it? Marya felt a cold wind on her back, the wind of fear.

Such a power might do—anything.

And yet it was being used to coerce one useless old woman into taking a job!

Marya Proderenska lay flat on the floor, her arms outstretched. Thus one might gather the vital energies. Four o'clock was not many hours distant, and by four o'clock she would need all of the energy she could summon.

She did not allow herself to become doubtful about the outcome.

And yet she was afraid.

Gloria smiled understandingly at the woman who sat across the desk.

"I understand, Mrs. Francis," she said.

"It's not that Tom's a bad boy, you know," the woman said. "But he's—easily led. That's the only thing."

"Of course," Gloria said. She looked at the middle-aged woman, wearing a gray suit that did not fit her overweight frame, and a silly little white hat. "I'm sure everything's going to be all right," she said.

Mrs. Francis gave a little gasp. "Oh, I hope so," she said. "Tom doesn't mean to cause any trouble. He just doesn't understand—"

Gloria went over the report sheets mentally. Tom didn't mean to cause any trouble, but he had been involved in a gang war or two—nothing in the way of Thompson sub-machine guns, of course, or mortars. Just a few pistols and zip-guns and rocks and broken bottles.

Tom hadn't been killed yet. That was, Gloria thought sadly, only a matter of time. He hadn't killed anybody yet, either—but he'd come close. Tom had seen the inside of a jail or two a lot more recently than he'd seen the inside of a classroom.

Tom was easily led.

Sure.

Well, Gloria thought, the problem was to lead him into something more productive and satisfying than the gangs of New York. And that didn't seem to be too hard.

Of course, she had very little practice as yet. The theoretical knowledge she'd been able to dig up in college was mostly on the magic and superstition shelves of the library—and, while she got full credit in her minor, Anthropology, for the research she'd done, a great deal of it just wasn't any practical help.

Not if you *were* a witch—or what passed for one.

"You see what I mean, don't you?" Mrs. Francis said.

"Of course I do," Gloria said, and gave the woman her most reassuring smile. "I'm sure something can be done. Do you know where your boy is now?"

Mrs. Francis nodded, birdlike. "He's home now. I think he's sleeping. He usually doesn't wake up until after noon."

"I see." Gloria hesitated a moment. "Can you describe him for me?"

"Describe him?"

"That's right," Gloria said. "You see, the somatotypes have, we've discovered, a great influence on mental and emotional makeup."

She didn't feel right, lying to the woman—but chances were that what she'd said didn't make any sense to Mrs. Francis and, in any case, Gloria

could hardly tell her the real reason she wanted a description.

It would aid in making the doll she needed.

"He's about six feet tall," Mrs. Francis said, "but he's very thin, and sometimes I worry about that. I try to give him the best nourishment I know how, but he—"

"What color is his hair?" Gloria interrupted.

"Oh," Mrs. Francis said. "Brown. And brown eyes. Really nice eyes; they're his best feature; everybody says so."

"Any distinguishing marks, or anything unusual about him?"

"He has a scar now, on his left arm just below the elbow, but he got that in a fight with these boys—"

"All right," Gloria said. "Thank you very much."

"What are you going to do?" Mrs. Francis said. "You're not going to have him arrested or anything, are you? Because he's not a bad boy, you know that. He's only—"

"Easily led," Gloria finished. "Of course. There won't be any need for arrest, or for anything as drastic as that. You just go home now, and don't worry. I'm sure everything's going to be all right."

"I only want to help my boy," Mrs. Francis said.

"Of course you do," Gloria said. "I want to help him, too."

Mrs. Francis stood up and swallowed hard. "I appreciate that," she said.

"It's my job, that's all," Gloria said, feeling unaccountably shy. As the woman left she thought about that embarrassment and finally decided that she felt she had no right to be complimented. She was doing a job; it needed to be done; that was all.

True, she had special talents for the job—but Mrs. Francis didn't know that, and she hadn't made the talents anyhow, but been born with them.

Congratulaions?

Don't be silly.

As a matter of fact, Gloria thought, she deserved a good talking-to. She hadn't had enough experience, and that was the simple truth. It was all very well to work on a boy like Rudi, or another one like Tom Francis, when they didn't have any idea who you were or even that you were trying to do something. That was easy.

But a woman like Mrs. Wladek—

She was suspicious from the start, and Gloria thought that perhaps she shouldn't have done anything. But it was obvious that the woman needed help to become a functioning member of society.

The only trouble was that Gloria hadn't been quite expert enough. Oh, given enough time, the command would work, and eventually become part of the personality. But, because Mrs. Wladek had been afraid and a little forewarned, she'd been able to fight off the command a little.

Practice, Gloria told herself, *makes perfect.* And it wasn't her fault that she couldn't do any better. Next time, she'd have a little more practice and

she'd be able to do a clearer and more complete job.

And, in the meantime, there was no real harm done. Mrs. Wladek would come round, before long, and then everything would be all right.

Why, after all, there was Rudi, too. And Rudi undoubtedly had a job by now, or at least a good chance of one through an employment agency.

There was no reason to be depressed.

Her son was waiting for her when she arrived at her home once more. Mrs. Wladek looked at the boy with relief and some suspicion. It was not natural for Rudi to be at home during such an hour; he was out with his friends through the day, and this was good for a boy.

"Ma," Rudi said, "guess what?"

"You are in trouble," Mrs. Wladek said at once, in a heavy voice.

"Trouble? I got no troubles, ma," Rudi said. He stood before her in the dusty living room, self-assured and proud, and it came to Mrs. Wladek all at once that her boy was a man.

"What is it?" she demanded. "Tell me at once."

"Sure I will, Ma," Rudi said. "I got a job. I start tomorrow. In an office, wrapping things. The mail room, they call it."

Silence descended on the little room.

"Ma," Rudi said at last. "Ma, what's wrong?"

"Wrong?" Mrs. Wladek said. "What should be wrong? Nothing at all is wrong. You have a job, very well, you have a job."

"You're not happy about it, Ma?"

Mrs. Wladek gave a short bark. "Happy? Indeed I should be happy? My son goes to work, like a dog, and I should be—" She paused and gasped suddenly. "Why did you go to work?"

"You mean why did I get a job, Ma?" Rudi said. "Listen, let's have supper and we'll talk about it, huh?"

"Supper?" Mrs. Wladek snorted. "Supper we will have when I find out what I need to know. Not before."

"But I'm hungry, Ma, and . . . oh, all right." Rudi sat down on the old brown couch and sighed. "I just thought it would be a good idea to get a job, bring some bread into the house, you know? So I went down to the agency, and they had this application waiting, and I went down and got the job, and I start tomorrow. That's all. Now let's eat."

"You got the idea to have a job?" Mrs. Wladek said. "Fine. Fine. Just fine. And when did you get this idea?"

"I don't know," Rudi said, and shrugged. "Some time. This morning, maybe. Look, what difference does it make? I thought you'd like the idea, Ma. Some more dough coming in . . . you know."

"This morning." Mrs. Wladek raised clenched fists over her head. "Cossacks!" she screamed. "Monsters! Witches!"

Lunchtime.

Gloria looked up and smiled sweetly and distantly as Harold Meedy appeared at her desk. "Got any special place to go?" he said.

"As a matter of fact—" she began, but he was too quick for her.

"It's always 'as a matter of fact,' " he said. "What's the matter—you got another boy friend or something? You don't like poor Harold? Look, Gloria, if you want to avoid me, then you go ahead and avoid me. But—"

"It's nothing like that," Gloria said.

"So come on," Harold said. "Listen, I'm really a sweet guy when you get to know me. You'd like me. Sure you would."

"I'm sure," Gloria said. "But I really do have something to take care of."

"Can't you take care of it later?"

She shook her head.

"Well . . . all right, if you want me to grow up all frustrated." He grinned at her and moved away.

When they were all gone, and only Mr. Fredericksohn remained in his private office, behind the closed door, Gloria opened a drawer of her desk and took out a piece of modeling clay a little bigger than her fist. Working without haste, and never bothering to look up she made a doll in the shape of a tall, thin boy.

The voodoo sects in Haiti used hair or fingernail parings from the subject, Gloria knew; she had learned that in her college research, but she had known about the doll long before. Hair and fingernail parings: what superstition! And it wasn't as if you really needed the doll; if necessary, you could get along very well without it. But it was a help; it made things easier; and why not?

She tried to picture Tom Francis. His mother's description of him had been pretty vague, but Gloria found she could locate him at his house; she turned the doll until she had the feeling of contact, and then—

There.

It didn't take long, actually, not once you had your subject located. Tom hadn't really been a hard case; his juvenile delinquency, Gloria was quite sure, was a thing of the past. He'd be back in school as soon as the details could be worked out between Mrs. Francis and the Board of Education, and that would take care of that.

With a satisfied smile, she put the doll away in her drawer. She'd mash it back into clay later in the afternoon; that would enable her to use the same piece over and over again.

Clay cost money, and a case worker's salary wasn't large. Gloria could not see how she could put the cost of the clay down on a special requisition, anyhow; she had to pay for it herself, and so she was very careful and saving with it.

After she'd put the Tom doll away with the Rudi doll, making a mental note to take care of both of them before she left for the day, she fished out her beret and put it on and went out for a quick lunch.

It was just after two o'clock when

Mr. Gerne came in. The others were used to his periodic arrivals, of course, and Gloria had never felt any fear of the director. He didn't work in the same office, but elsewhere in the building, and once a week he made a habit of touring the various social-work agencies under his direction.

It kept the workers on their toes, Gloria imagined: the actual sight of the boss' boss would do that. Mr. Gerne never smiled; he was a small, thin-lipped man with white skin and very little hair. He stood in the outer office, peering round, for a few minutes, and then, nodding his head slowly, he went on and knocked at Mr. Fredericksohn's door.

"Who's there?" Mr. Fredericksohn called from inside.

"Mr. Gerne," said Mr. Gerne. There was a little pause, and then Mr. Fredericksohn said:

"Ah. Come in."

The door opened and shut and Mr. Gerne was invisible.

Gloria picked up a folder and pretended to concentrate on it. Of course, she could hear what was happening in the private office perfectly well. She remembered studying medieval witchcraft and thought suddenly of astral bodies.

But that had been a guess some distance from the truth.

The projection of the sense of hearing was such a simple thing,

really; why did people have to complicate it with all this talk about witches and the soul—she was reminded of Mrs. Wladek but put the woman out of her mind. Mr. Gerne was talking.

". . . For instance, the new girl—what's her name?"

"Gloria Scott," Mr. Fredericksohn's voice said. "Yes?"

"What's she like?" Mr. Gerne's voice said. "I don't know her personally—of course I've seen her there in the office, and she seems like a friendly, pretty girl. But you deal with her every day—"

"Very nice," Mr. Fredericksohn said. "Pleasant and easy to work with. A good type. Now, you take her record—"

"That's what I meant," Mr. Gerne said. "A record like that—it's just not possible. There isn't any chance she's faking it?"

After a little silence Mr. Fredericksohn said: "No chance at all. I've had follow-ups on a random selection of her cases—standard practice for a newcomer. Of course, she doesn't know about any of that."

"Of course. And?"

"No fakes," Mr. Fredericksohn said. "And don't tell me it's hard to believe. I know perfectly well it's hard to believe."

"No returns," Mr. Gerne said. "Not a single return in over a month."

"Except the old woman," Mr. Fredericksohn said. "Mrs. Wladek."

Gloria turned a page in the report she was holding, without taking her attention from the conversation in the private room.

It was always helpful to know the kind of thing people said about you, as well as what they thought. It gave you more facts to work with, and made you more efficient and better able to work at your chosen profession.

Mr. Gerne was saying: "You can discount Mrs. Wladek. That one's a trouble-spot."

"Always has been," Mr. Fredericksohn said.

"All right, then discount her," Mr. Gerne said. "Forget about her. And —outside of that one case—there hasn't been a repeat."

"Some of the clients have died," Mr. Fredericksohn said.

Mr. Gerne waited a second. Then he said: "A little higher percentage than normal. So?"

"I mean, that's a reason for some of the non-repeats."

"And the others?" Mr. Gerne paused a minute and then went on. "You can't discount the girl's record like that."

"I wasn't trying to," Mr. Fredericksohn said mildly. "I was only pointing out—"

"Let those go," Mr. Gerne said. "Obviously she had no control over that sort of thing. Unless you think she went out and killed them?"

"Of course not." Mr. Fredericksohn said.

"And outside of that, then—no repeats. The girl's a wonder."

"Certainly," Mr. Fredericksohn

said. "Let's see how long it keeps up, that's all."

Mr. Gerne said: "Pessimist. All right, we'll drop the subject for now. Anyway, I did want to talk to you about the progress reports we've been getting from Frazier's office. It seems to me—"

Gloria broke the connection. Frazier, a supervisor for another office, didn't interest her; she only wanted to hear what the conversation about herself would be like. Well, now she knew.

And, thankfully, no one suspected a thing. Why, the subject had been brought up, right in the open, and dropped without a word or a thought.

"Unless you think she went out and killed them."

Gloria didn't smile. The idea was not funny. Sometimes you had to do something like that—but the necessity didn't make it pleasant.

The trouble was that you couldn't always cure something by a simple projection into the mind. Sometimes you ran into a compulsion that was really deeply buried.

If the compulsion was a big one, and went back far into childhood, Gloria couldn't do anything directly about it. Sometimes it was possible to work around, and, of course, you did that when you could. The important thing was society, but you salvaged the individual wherever possible.

Where it wasn't possible—

Well, here's a man who has a compulsion to get drunk. And, when drunk, he's got to pick fights. Maybe he hasn't killed anybody in a fight yet—but some day he will. He's got the strength and, under the influence of sufficient alcohol, he's got no inhibitions about using it.

None.

You can let the man live, and by doing that kill an unknown number of other people. At the least, keeping your hands and your mind off the compulsive drinker-fighter will serve to injure others—how many others, and how badly, you can't tell.

There are times when you've got to take an individual life in your hands.

And yet, because you can't always be sure—

Gloria's "talents" could kill out of hand, she was sure. But she didn't use them that way. Instead, she simply projected a new compulsion into the mind of her subject.

The next time he got drunk and wanted to start a fight, he wanted to do something else, too.

For instance: walk along the edges of roofs.

The original compulsion had been added to, and turned into a compulsion toward suicide; that was what it amounted to.

Gloria didn't like doing it, and she was always glad when it wasn't necessary. But there was a dark side to everything—even, she thought, helping people.

She told herself grimly that it had to be done.

And then she returned to her work.

Mrs. Wladek pounded on the door

of the gypsy's store a few minutes before four. Her face was white and her lips set in a thin line; she breathed with difficulty and with every move she made she could feel her old bones creak.

It was a shame what was being done to an old woman.

But did they care? Did any of them care?

Mrs. Wladek gave a little snort that was half laughter and half self-pity. She pounded on the door again and dropped her arm, feeling old and tired and nearly helpless.

But she had to fight on.

There was a limit to what an old woman could be expected to stand. They would learn, all of them, what—

The door opened.

Marya Proderenska said: "Yes? You are early."

"I am in a hurry. Terrible things have occurred."

The gypsy woman sighed and stepped aside. "Come in, then," she said, and Mrs. Wladek entered slowly, peering round the front room.

"Come in the back," the gypsy woman said. "I have been preparing to help you. But more is required."

It was Mrs. Wladek's turn to sigh. She reached into her purse and found a fifty-cent piece, which she handed over very slowly.

"More is required," the gypsy woman said, looking at the coin in her hand as if, Mrs. Wladek thought, it was less than a penny. Did not the woman realize that fifty cents was a great deal of money for a poor old woman?

No one had any pity any more.

She handed over another fifty cents and the gypsy woman nodded sadly, pocketed the money and led the way to the back room.

"You will help me now?" Mrs. Wladek said.

"I will try."

The room was silent as the gypsy woman brought all her knowledge and experience into play. Finally she looked at Mrs. Wladek and said: "A very powerful curse has been put upon you. I can't help you."

"The Church will help me!" Mrs. Wladek screamed. "They have the power to exorcise—"

"Do not speak to me of churches," the gypsy woman shouted.

Mrs. Wladek shook her head. "You, who steal my money, who steal the bread from my old mouth without pity—"

"A woman must live," Marya Proderenska said, with great dignity.

The housekeeper had said Father Seador was at supper. This did not make a difference. Mrs. Wladek's problem was certainly serious enough to interfere with any man's supper. Father Seador was overweight in any case; should he miss the entire meal it would not do him any harm. Marie Wladek had a problem, and a serious one; let him miss his supper. It was his job to help people.

But Father Seador would certainly not be in the best of moods.

He was not.

He arrived with his face set in firm lines of disapproval. Mrs. Wladek got up from her chair and curtsied toward him, being very careful of her old bones. He nodded.

"Rudi in trouble again?" he said at once, taking a chair.

Mrs. Wladek sat herself down slowly. When she was settled, she looked over at the middle-aged man. "Rudi has a job."

"A job? A job?" Father Seador blinked. "That's fine. That's certainly good news."

"So you think," Mrs. Wladek said crisply.

"Well, of course it's good news," Father Seador said. "Responsibility . . . steady income . . . Mrs. Wladek, I'm sure this has made you very happy, but if you'll pardon me." Father Seador stood up. "I'm in the middle of—"

"Wait," Mrs. Wladek said. "This is not what I have come to talk to you about. It is *why* he has taken a job. It is *why* I will be taking a job."

"You?" Father Seador seemed incapable of speech. "Well, I—"

"I am bewitched," Mrs. Wladek said. "A curse is upon me."

"A curse? Well—" Father Seador stopped and cleared his throat. He sat down again. He blinked. At last he said: "What's wrong, Mrs. Wladek?"

"I have told you," she said. "A curse. A curse. I want you to exorcise this witch that has put on me a hex."

"Exorcise? Curse?" Father Seador coughed. "I'm sure you must be mistaken, or—"

"Mistaken? I am not mistaken. I tell you there is a curse upon me."

The parlor was very quiet for a long time. At last Father Seador said: "If you really believe you've been hexed, you'd better give me all the details. When did you feel this . . . this curse put upon you?"

"This morning," Mrs. Wladek said.

"And what kind of curse is this? I mean, what effect has it had?"

Mrs. Wladek's voice was as hard as iron. "It has made my son take a job. It has made me want to look for a job. In time, I will not be able to fight the curse, and I will take a job. And then—"

"I don't see anything wrong about that," Father Seador said mildly.

"You see nothing wrong in a poor old woman being forced to work? In a boy forced to grind out his youth among package-wrappers? You see nothing wrong in this?"

"Well, I . . . we all have to work."

"Here?" Mrs. Wladek said with astonishment. "Here in America, you believe that? It is not so. My own uncle Bedrich has told me years ago it is not so. Do you dispute the word of my own uncle Bedrich?"

"My good woman," said Father Seador, "look around you . . . your friends, your neighbors—"

"Let us say no more about it," Mrs. Wladek interrupted. "There is a curse upon me and I have called on you to remove this curse."

"How do you know this is a curse?

Our minds do change, you know, and they do strange things—"

"I have been told," Mrs. Wladek said.

"You've been told? By whom?"

Mrs. Wladek drew herself up in the chair. "By Marya Proderenska, the gypsy fortune teller. She knows that—"

"A gypsy? You consulted a fortune teller?"

"I did."

"Mrs. Wladek, do you know what you are saying . . . what you have done? Don't you realize you have committed a sin against—"

But he was speaking to empty air. Marie Wladek was gone.

Gloria looked up at the little clock and sighed briefly. Five o'clock. Another day gone already.

It was a shame, in a way, that time passed so quickly. Gloria didn't feel the least bit tired. After all, she had spent the day in helping people, and that was what made life worthwhile.

But it was quitting time. Staying late would give her the reputation of an eager beaver, and that would make her unpopular. Not that she cared for popularity for its own sake—certainly not!—but you couldn't do your best work unless the others in your office were willing to help you.

Leaving on time was a simple sacrifice to make for them.

She pulled open the desk drawer and got her beret. Then, as she was putting it on, she remembered.

In the other drawer were the clay models.

She opened the drawer and pulled them out. She had barely reduced them to a single amorphous lump when Mr. Fredericksohn passed her desk.

"What's that?" he said. "Clay?"

"A nephew of mine," Gloria said coolly. "He likes to play with clay. I bought some and I'm taking it home."

"Ah," Mr. Fredericksohn said. "Of course. Good night."

And he was gone. Gloria put the clay back into the drawer and reached for her beret.

Harold Meedy called from across the room: "Going home?"

"That's right," she said.

"Can I charter a bus and drop you somewhere?"

"I'm afraid not," she said. "I've really got to get right home."

"Listen," Harold said. He came over to her desk. "I've been trying to get somewhere with you ever since you walked into this office. Now, what's wrong with me? I haven't been able to get to first base. Don't you like me?"

"Mr. Meedy," Gloria began, "it's just that . . . well, I don't believe in inter-personal relations on that level, not in the office. I'm sorry."

He blinked. "You really believe that, don't you?"

"Of course I do," she said.

"But—" He shrugged. "O.K. O.K. I just wanted to know."

The door closed behind him. Gloria felt a little relieved. If mat-

ters had gone on the way they'd threatened, why, she might have had to change Harold Meedy's mind for him. Not that it would have done him any harm, but . . . well, she just didn't like doing that sort of thing for purely personal reasons.

She was glad she hadn't had to tamper with him at all.

And now it was over, and she could forget about it. Humming under her breath, she put her beret on at last, and gave the stack of folders a pat to keep them absolutely neat, before she left the office.

She still felt a little sad about leaving on time, when there was so much work to be done. But tomorrow, she told herself, she would be able to get back to helping people. Tomorrow—

Tomorrow.

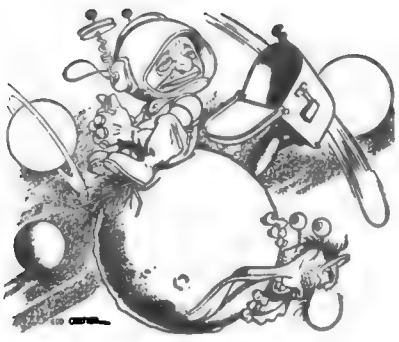
Ten minutes to nine, and Gloria put her beret away, reached for the first folder—and froze.

A second later the door opened. Gloria looked up and smiled helpfully. "Mrs. Wladek," she said. "Is there anything I can do for you? This isn't your day for—"

"It is not my day," Mrs. Wladek said. She closed the door behind her. "This, I know. But I am here. Does this mean anything to you?"

Gloria forced her face to remain expressionless. "Can I help you in any way?" she said. "Is there anything I can do?"

"You?" Mrs. Wladek barked. "You have done enough. I am not here to see you. But your supervisor, your boss—him, I will see."



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"My supervisor?" Gloria looked round. "He isn't here yet."

"He will be here later?"

"Of course he will," Gloria said.

Mrs. Wladek sat down in a chair next to Gloria's desk. "I will wait," she announced. "And you should know that there is nothing you can do to me now." She reached into her bag and brought out a small wooden cross she had brought with her from the old country. She waved it at Gloria wildly.

"Do anything to you? What do you mean, Mrs. Wladek?"

"Hah," Mrs. Wladek said. "You need not pretend with me. This frightens you. No?"

Gloria blinked. "I'm afraid not," she said.

"But . . . you are trying to fool me," Mrs. Wladek said. "And I will not be fooled. I wait here for your boss, your supervisor."

There was nothing else to do. "All right," Gloria said.

Everybody stared, of course, but none of the other workers came over to find out why Mrs. Wladek had come in on a day that wasn't her appointment day. With Mrs. Wladek right there, asking questions just wasn't possible. Gloria tried to get some work done, but that wasn't possible either, and she resigned herself at last to sitting quietly and waiting for Mr. Fredericksohn's arrival.

She promised herself she'd make up for the loss of time by taking a shorter lunch hour, and that relieved her mind a little. But she did hope Mr. Fredericksohn would be early.

Thankfully, he was. At nine twenty-five exactly, the door opened and Mr. Fredericksohn entered. He glanced once round the office, saw Mrs. Wladek and went on. A second later he stopped.

He didn't have a chance to say anything. Mrs. Wladek was at his side. "I must see you at once," she said. "I must see you alone, at once."

He stared at her. "Miss Scott here, I'm sure, can—"

"It is about Miss Scott that I want to talk to you," Mrs. Wladek hissed.

Mr. Fredericksohn glanced at Gloria. She busied herself with papers. At last he said: "Come with me," and led Mrs. Wladek down the aisle into his private office. The door closed.

Ten minutes passed and the door opened. Mr. Fredericksohn's head projected. "Miss Scott," he said. "May I see you for a minute?"

The curiosity in the office was almost a solid pressure, but Gloria paid it no attention. She said: "Certainly," put away the folder she had been consulting, and went in.

There, at the side of Mr. Fredericksohn's desk, Mrs. Wladek was sitting, looking determined, grim and baffled all at once. Gloria stood in front of the desk and Mr. Fredericksohn seated himself behind it, the large open window at his back.

"Yes, Mr. Fredericksohn?" Gloria said.

"I have told him all," Mrs. Wladek said. "All. Everything. Total."

"Er . . . yes," Mr. Fredericksohn said. He faced Gloria resolutely. "Mrs. Wladek has said something about a . . . about a spell. Do you know what she might be talking about? Something you said, some impression you gave her—"

"A spell?" Gloria shook her head. "I can't think how she got that idea," she said calmly.

"You do not fool him," Mrs. Wladek said. "He knows. I have told him all."

"Certainly," Mr. Fredericksohn murmured. "But perhaps some little thing—"

"My report will be ready in an hour," Gloria said. "But I'm sure there was nothing."

Mr. Fredericksohn coughed convulsively. "I suppose not," he said. "I realize this is rather unpleasant for you—"

"I quite understand," Gloria said.

Mrs. Wladek came out of her chair in a single movement and clutched Gloria by the left arm. "What is happening?" she demanded.

Mr. Fredericksohn avoided her eye. "Please sit down," he said. And then, to Gloria: "Miss Scott, if you'll make the call . . . you know what I mean?"

"Of course," she said.

"The—" He whispered it: "The hospital?"

"What did you say?" Mrs. Wladek demanded. "What did you tell her?"

Gloria disengaged herself and went to the door. As she shut it behind her she could hear Mrs. Wladek's voice, rising to a crescendo of threats and abuse, and Mr. Fredericksohn's calm, scholarly attempts to stem the tide. She almost smiled.

Then she went to her own desk and picked up the telephone.

Actually, she told herself, matters had worked out for the best. Rudi had a job, and would grow into a fully functioning member of society. Mrs. Wladek would not be on the relief rolls any longer.

And what Mrs. Wladek wanted—a place to live, and someone to take care of her—would certainly be provided for her.

Yes, everything had worked out for the best. And, next time, she'd be able to handle a situation like Mrs. Wladek's with less trouble. Gloria looked into the future—into a long series of days and weeks, helping people, getting them to do what was best for them. Oh, sometimes they wouldn't like it right away, but you had to expect that. What was best for them—

Gloria smiled to herself quietly, and dialed a number.

On the second ring, a voice said: "Bellevue Admitting."

"We'd appreciate your sending an ambulance and attendants right away," Gloria said. "For the psychiatric wards."

THE END

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BY P. SCHUYLER MILLER

WHO SAYS?

BACK in the dear, lost years before the younger generation grew bored with evolution by natural selection and induced massive mutations on the American language, junior high-schoolers of my acquaintance had a challenge for almost any dogmatic statement: "Who says?"

Where the sharper members of that select crew were concerned, this wasn't just adolescent perversity—the kids had learned a lesson that most adults never learn, that any statement is only as good as its source, and if you can't trust that, even the most logical and reasonable of assertions is questionable. In our own field — the narrow region where science and fiction overlap and intermingle — this is precisely the stumbling block in most of the literature of extrasensory perception, UFOs, and even satellites.

Dover has reprinted an extended, paperback edition of a book that originally came out in 1940, and that is practically a handbook of unreliability: "Hoaxes," by Curtis D. MacDougall (338 pp.; $1.75). The author is Professor of Journalism at Northwestern University, and although he isn't infallible in his judgments, he is pretty devastating. I'm sorry, in fact, that in covering everything from the Cardiff Giant to the disclosures about Piltdown Man, he or the publishers haven't seen fit to add a chapter on flying saucers—or that section of UFOlogy that is demonstrably faked, even in the minds of believers in extraterrestrial visitors —and that he probably never heard of Shaverism.

Professor MacDougall has, in some cases that I've been able to detect, fallen victim to the very same kinds of partisan information that he warns against. Seagulls *do* drop clams on hard surfaces—I've seen 'em doing it—though I'd never attempt to prove that it was because they were trying to crack the clams open, instead of because clams are hard to hang on to, and I'm as dubious as the professor about their trying to dive-bomb mice. The "translation" of the (now lost) Grave Creek Mound tablet—which "experts" of the mid-Nineteenth Century had identified as Runic, Greek, Phoenician, Celtiberic, Etruscan, Old British, and assorted other languages—was not, as Professor MacDougall and the Smithsonian believe, "Bill Stump's Stone, October 14, 1938." That version was *itself* a hoax by Andrew Price, President of the West Virginia Historical Society, and it was not the first time a seemingly obvious satire has gone astray. Look at the committees that have raised their hands in horror at *Mad* magazine, taking its broad burlesques of sex and sadism as the thing itself.

You'll find "Hoaxes" valuable as much for its author's analysis of why people perpetrate such swindles, and especially of why people believe them, as for its accounts of scientific hoaxes themselves. We believers are indifferent, we're ignorant and superstitious, we're suggestible and prone to jump on the band wagon. Science has made people *more* gullible, Professor MacDougall contends, because it has accustomed them to daily marvels with no visible cause.

One of the greatest incentives to launching a hoax and to swallowing it is promotion of a cause. The professor was fooled by the "Bill Stump" explanation of the Grave Creek stone because it promoted his cause of exposing hoaxes. He implies elsewhere that "mesmerism" is a fake, although under the name of hypnotism it is being used medically.

There are two other books on the shelves now that are certainly not hoaxes, but that certainly are examples of promoting a cause. They have been attacked, sometimes violently, for suppressing or twisting facts in order to sell the authors' crusades. In both cases, I don't think any judg-

ment can be made by any reader who doesn't have special knowledge. It may take another generation to decide what is true, what is false, and what has been distorted.

The books in question are Robert Jungk's "Brighter Than a Thousand Suns" (Harcourt, Brace & Co., New York; 1958; 369 pp.; $5.00) and Dr. Linus Pauling's "No More War!" (Dodd, Mead & Co., New York; 1958; 254 pp.; $3.50). Jungk is a German-born journalist and member of the anti-Hitler underground who was interned in Switzerland and has been an American citizen since 1950; you may have read his "Tomorrow Is Already Here," which I should have recalled last month with the other appraisals of our future. Pauling, of course, is the Nobel laureate in chemistry who is crusading against further atomic bomb tests.

Of the two books, Jungk's is by far the better written, most interesting, and has been the most hotly attacked by the atomic scientists with whom it is concerned. Reviewing the book in *Science* for December 26, 1958, Dr. E. U. Condon begins: "This is a thoroughly bad book which is so interestingly written that it is sure to be widely read, and thus to make a large contribution to spreading confusion and erroneous views about its subject." In the December, 1958 *Scientific American*, another of the men who made the bomb possible, Dr. Robert R. Wilson, is more explicit in refuting many of Jungk's statements of fact, yet more understanding about what he is trying to say.

Jungk's theme is the moral dilemma facing the scientists who created the first atomic bomb. It divides itself into two parts, both of which have been savagely attacked as anything from mistaken judgment to out-and-out distortions of known facts. Since it was published in Germany in 1956, and in England earlier in 1958, there has been ample time for the controversy to become worldwide.

Part One of "Brighter Than a Thousand Suns" is the story of the German atomic energy program that failed. What has aroused the storm of contention is Jungk's statement that the German atomic scientists, for the sake of humanity, deliberately stalled and dragged their feet to keep Hitler from getting an atomic bomb. He documents his argument rather liberally; critics question his sources, and accuse him—and the people he quotes—of a whitewash job.

Part Two is the story of the Manhattan Project, and the way in which its international corps of scientists did *not* prevent the bomb from being made. Here I think that some reviewers have let their reaction against the first argument read more into the second than Jungk intends. He certainly makes clear that the men of many nations who instigated the Manhattan Project did so because they had every reason to fear and believe that Hitler's scientists could and would get an atomic bomb first. He also shows that after the men at Los

Alamos knew there was no German bomb, they had gone well beyond the point of no return. The decision to bomb Hiroshima and Nagasaki was military, and if the book has a villain it is General Groves and not the Los Alamos physicists.

Controversial the book certainly is, as well as fascinating. Much of the author's information apparently came from brief interviews with the actors in the atomic drama, years after the events they were recalling. His sources and his judgments are open —as Dr. Wilson points out—to charges of journalistic shallowness and a judgment colored by the author's point of view. Szilard, whose initiative set the Manhattan Project in motion through the letter he drafted for Einstein's signature, emerges as a personification of the voice of Man's conscience. Oppenheimer appears as a kind of Faust, dazzled by prestige and hungry to hold onto it; Groves seems an opportunist of another and more sinister sort, dogged in his determination to have "his" project carried through to a bomb-drop, no matter what stood in the way.

If Jungk's facts are mistaken or distorted or fabricated, then "Brighter Than a Thousand Suns" is a major hoax, written to discredit American science in the eyes of the world. But reading such reviews as Wilson's and even Condon's, it appears that any distortion is one of detail, and that the moral problem of the bomb *was* a major issue with everyone concerned with it.

That it is still an issue, Pauling's book shows. This is the carefully spelled out argument against bomb testing by anyone, in which Pauling is serving as a spokesman for many other scientists. Its theme is very simple: "There *is* no safe amount of radiation."

This, as I am sure you know, is the counterposition to that held and stated by the Atomic Energy Commission and by its spokesmen in talks and papers by such men as Dr. Willard R. Libby and the book, "Our Nuclear Future," by Drs. Edward Teller and Albert Latter. They counter Pauling's arguments with a two-fold statement: (1) the radiation from fall-out is still too small to be significant, compared with other radiation sources not connected with bomb tests; and (2) dangerous or not, we do not dare, for military reasons, not to go on testing.

In both these books, you see, the basic question is: "Who says?" Jungk is a journalist; he may or may not be misquoting his sources, but he was not personally involved and can't speak for himself, of personal knowledge. His book is openly colored by his attitude. Pauling's book also represents a judgment, as does Teller's, but in this case the men who wrote them *are* participants and making their judgments from direct evidence in their hands. They come up with different answers, and it is because they begin with different assumptions: Pauling's, that *no* even-

tuality justifies our risking the lives and bodies of future generations by polluting the atmosphere with radioactive dust and Carbon-14; Teller's, that *no* future hazard justifies our opening the way to a defeat by the Soviet. Both men, I am sure, will agree to Pauling's basic conclusion: there must be no atomic war. It is one that science fiction took as elementary long before there was a Manhattan Project.

Hoaxes? No. Books colored by their authors' preconceptions? Very clearly. I don't think we will know—possibly not for generations—whether Teller or Pauling is right as to the potential damage of fall-out. Nor do I think that any historian can judge, until we reach an era of less tension, whether Jungk's over-all picture is correct, whatever may be true of his facts.

* * *

Politics, needless to say, are not limited to the world scene. The politics of SF-fandom are a wonderful thing indeed, and probably gave A. E. van Vogt the inspiration for his wheels-within-wheels-within-wheels formula. To take part in the battling for the 1960 World Convention site—Pittsburgh vs. Washington vs. Philadelphia is the line-up now, with no dark horses rumored—you should be at the 1959 Convention in Detroit, Michigan, on Labor Day week end, September 5th, 6th and 7th. For all bulletins, including a reservation card for the Convention hotel, the Fort Shelby, send your membership fee of $2.00 to the Convention Treasurer, Jim Broderick, 2218 Drexel Avenue, Detroit 15, Michigan. See you there!

I may also see some of you—though there's a conflicting meeting at which I'm supposed to preside—at the convention-without-a-program, the 10th Midwestcon, at the North Plaza Motel, 7911 Reading Road, Cincinnati 37, Ohio, on the week end of June 27th-28th. Reserve yourself a place by the swimming pool, among the poker-playing skin-divers in the Marine Lounge, or at Lee Tremper's latest sale of the old-and-good—not to mention Bob Tucker's old-and-good on the rocks.

* * *

Last minute bulletin: Marty Greenberg of Gnome Press has stretched his "Pick-a-Book" plan to include the Avalon SF novels as well as most of his own. Write to Pick-a-Book, P.O. Box 63, Hicksville, New York for details of the plan that gives you new SF by two of the most active publishers in the field, for as little as $1.20 a copy.

HONEYMOON IN HELL, by Fredric Brown. Bantam Books, New York. 1958. 170 pp. 35¢

This is a mixed collection of science fiction, fantasy, and gags (Bantam No. A-1812, as I forgot to say above) in the inimitable Brown manner. There are twenty-one items in all, which are too many to describe

as I usually do with a short-story collection. And while the stories hit a pretty high level of entertainment, none of them is really memorable and the continuous switches—and often gagged-up switches—on the time travel theme grow a little monotonous.

To stick to the purely SF items, we have two stories from Astounding, including what I consider the best, and seven from *Galaxy,* with odds and ends from other magazines. My favorite is a straight problem yarn, "Arena," here in 1944. A wandering super-being discovers Earth and the Aliens slugging it out on the borders of the solar system. He snares a champion of each race, coops them up in a desert dome with a force field impenetrable to life between them, and tells them to fight it out. The loser's fleet will be destroyed; the winner will earn his race a chance to rule the galaxy—but they can't get at each other.

"The Weapon," 1951, is just as good and an excellent example of Brown's ability to handle full-blown SF themes in a very few, very effectively managed words. In this, the man from the future finds a very neat way of convincing a scientist that his discovery is too dangerous for Mankind. This, you might say, has a serious gag-ending whereas the collection also has several examples of Brown's well known "gag for gag's sake" finales.

The title story, from *Galaxy,* puts an American man and a Russian girl on the Moon, in an internationally planned honeymoon designed to get around a suspected blanket of radiation that is producing only male births on Earth. Brown being Brown, that isn't all the story does. Then there's "Man Of Distinction" from *Thrilling Wonder,* in which a drunk prevents the Aliens from enslaving us all, and "Mouse," from the same magazine, which presents an Alien invasion of a very different sort. ("And the Gods Laughed," from *Planet Stories,* is much too similar: I'll take the later story with its believable cat.)

I've said that time travel is served up in just about every possible way, including the borderline "Blood" in which two vampires go looking through time for a future where they're not known. In "The Dome" a man decides to wait, safely protected, for Man to destroy himself. "Hall of Mirrors" is probably the best, idea-wise, showing how time-travel may bring a kind of immortality. "Experiment" and "First Time Machine" are very short, very well done developments of familiar angles.

"The Last Martian" (*Galaxy* again) is a slight but nicely done switch on the alien invasion, about even with "Mouse" in quality. "Keep Out," from *Amazing,* shows us the backfiring of another nice idea: colonization of the planets by breeding adapted colonists.

Omitting the fantasies and the epilogue, "Imagine," we have left another very good little short-short that depends entirely on the author's skill as a writer for its effect, and that

proves he has that skill. I'll set it beside "The Weapon" and "Mouse": "Sentry," from *Galaxy* again, and too short to describe.

Lack of variety is all that keeps this from being an outstanding collection.

THEORY OF FLIGHT, by Jacques Casolet.

Collectors among you may want this privately published paper-back which a reader, Douglas M. Crow of 4237 N. Woodburn St., Milwaukee, Wisconsin, picked up in a Milwaukee bookstore. I can't imagine who else would. I've given Mr. Crow's address, incidentally, because he has volunteered to get copies for anyone who writes him. Price: forty-five cents, including the cost of mailing (no publisher is listed).

This is subtitled "a theoretical science novel," and the narrator-author's name may be fictitious. He is a Wisconsin resident of French-Canadian descent who inherits a sizable fortune from a remote relative in Quebec, and goes there to build a flying saucer. This takes him to "Earthal," a hidden planet always diametrically opposite from Earth, on the other side of the Sun, which, of course, turns out to be the source of ordinary saucers. He drops the manuscript of his "book" surreptitiously during a return visit.

The typography is not much worse than in most privately printed books with which a printer has had a free hand. The style is weirdly arthritic, with quotation marks and (presumably) French accents scattered almost at random. I don't know the French-Canadian dialect, but I doubt that it could come out like this, even in a phonetic transcription.

This kind of book, though allegedly fiction, is often written to set forth the author's serious scientific theories. "Jacques Casolet" has a two-part theory of flight: (a) neutrons "have gravity to the Sun," but none to the Earth, so that a craft in which neutrons are generated will be attracted to the Sun; and (b) the weightless craft can be propelled and directed by creating a vacuum alongside, into which it will rush. He seems to realize that there is something wrong with this scheme's operating in space, which is all vacuum anyway, but doesn't let it stop the saucer from flying.

One spark of originality: "Earthal" is not a utopia. Added data: the chapters are separated by sections of a kind of parallel story in verse.

THE PLANET JUPITER, by B. M. Peek. Macmillan Co., New York. 1958. 283 pp. $8.50

This is not a book you'll be buying for casual reading. On the other hand, if you are an amateur astronomer with an interest in planetary observing, you may find it a "must." Jupiter is certainly the liveliest of the planets as well as the largest, and this book by a British astronomer,

who for fifteen years headed the Jupiter Section of the British Astronomical Association, spells out its wonders in detail.

The book is a companion to the books on Mars and Venus by Patrick Moore, and on Mars by Gerard de Vaucouleurs, that Macmillan has published in the last few years. It is a cross between Vaucouleurs' book and Antoniadi's classic gazetteer of Mars. After some introductory chapters on problems of observation, with the limitations well spelled out, the author describes each belt and zone on the multi-banded planet, from the north pole to the south. He points out the characteristics of each feature, describes what has been seen there, and gives a fairly detailed history of notable events in its observing history. In the southern hemisphere, this leads naturally into full chapters on the major features: the Great Red Spot, the South Tropical Disturbance, and others that will not be so familiar to the lay reader.

This detailed description of the surface of Jupiter—the planet's "zenography," to use the parallel with Earthly "geography"—is liberally illustrated with charts, drawings and photographs that make quite clear the strange combination of turbulence and stability that characterizes the top of the Jovian atmosphere. The study of these patterns of atmospheric circulation, taken with whatever rockets and satellites may eventually show of our own cloud patterns, may do a lot to make sense of the weather here on Earth.

There is a short chapter on the recent discovery that something on Jupiter acts as a source of radio waves, picked up by the world's radio telescopes. Of interest to the general reader will be the last, short section of theoretical discussion, in which Mr. Peek translates the observations already detailed into suggested models for the planet, its atmosphere, and its formations. Some of these have been described in these pages by R. S. Richardson.

This part of the book, among other things, shows how radically a little knowledge can change our concepts of the planets. The view of seas and clouds of hydrocarbons, not too old in science fiction, now must give place to concepts of an atmosphere which, because of Jupiter's greater gravitational gradient, may be shallower than our own . . . a solid core which is mainly metallic hydrogen . . . clouds of frozen ammonia tinted by traces of sodium and other metals . . . and a Red Spot which may be a kind of "submarine" of solid helium, bobbing gently in the atmosphere of semi-liquid hydrogen and helium, and producing the atmospheric disturbances that we see as it slowly rises and falls with slight changes in its, and the atmosphere's, density. Science fiction has yet to cope with this paradoxical environment adequately. What may Hal Clement, some day, do with all this?

News Note: In *Science,* October 10, 1958, Dr. Seymour L. Hess offers some comments on "Atmospheres of Other Planets." He considers the

Red Spot a floating mountain of some still unidentifiable material, on whose peak ammonia snow falls from time to time, covering the red "rock." He also brings his readers up to date on the atmospheres of Venus and Mars, using more recent data than is in the books. It's worth a look.

STAR GATE, by Andre Norton, Harcourt, Brace & Co., New York. 1958. 192 pp. $3.00

THE TIME TRADERS, by Andre Norton. World Publishing Co., Cleveland, Ohio. 1958. 219 pp. $3.00

If a little green god, squatting somewhere in the foothills of the Himalayas, watched over the fortunes of such master story-tellers as Kipling and Talbot Mundy, he must have a red-skinned relative in the suburbs of Cleveland, Ohio who keeps a close eye on Andre Norton. Whenever someone bewails the loss of a "sense of wonder" and adventure in present-day science fiction, he must make an instant exception for her growing shelf of alleged "juvenile" novels, every one of which is better adult fare than most.

Of these two books, my own preference is for "The Time Traders," partly because I enjoy the author's use of one of the most dramatic, though hitherto neglected eras in the prehistory of Europe, but mainly because I think it is a better story. Ross Murdock, a young "rebel without a cause," finds himself an impressed "volunteer" in a hush-hush Government time-traveling corps. Russia, it appears, is tapping some lost civilization of the far past for a series of potentially disastrous inventions. Our own agents have scattered themselves through prehistory in the hope of picking up the treasure-trail. Ross soon finds himself in Neolithic England as one of the "Beaker People," a trading folk who carried their characteristic pots all over Europe at the beginning of the great folk migrations.

He lands in England just as the trading post is destroyed by the "wrath of Lurgha"—a Soviet bombing raid. He and his more experienced partners follow a trail of clues into the eastern Baltic, then via the Soviet time-shuttle to Ice Age times, where the Russians have found not a lost civilization but the wrecked ship of an interplanetary empire. Soon the space people are involved . . . a wave of another migrating folk, the "Battle-Axe People," intervenes . . . and the plot grows happily tangled. The period is colorful and by no means stale, the details of the time-bases are nicely worked out, and the Aliens are properly menacing. In short, it's a grand job.

So is "Star Gate," whose hero is young Kincar s'Rud, heir to the chieftainship of the mountain holding of Styr on the far-off world of Gorth. Kincar is a six-fingered human whose father was one of the near-immortal Star Lords—star-roving Terrans who for some generations have been helping the feudal

people of Gorth to start the climb to civilization. Now some of the Star Lords are leaving, others with their Gorthian kin are passing through a mysterious "Star Gate," and Kincar is bidden to claim his heritage.

He soon finds himself in a little company of Earthlings and Gorthians who are looking for another Gorth in a parallel time track, where they can live out their lives in harmony. Harassed by rebellious outlaws, they travel too fast and land in an unhappy Gorth where the Star Lords have come as vicious overlords rather than teachers—and they decide, in a sense, to fight themselves and set this Gorth free.

Again the details are beautifully worked out. Kincar's woolly, four-eyed larng is the most convincing steed since John Carter discovered the throats of Barsoom, and his affectionately murderous hunting mord, Vorken, is precisely what you'd expect of a well-trained, eagle-size pterodactyl. The empty castle in the hills . . . the little people of the rocks . . . the contrasting societies of the Star Lords of the two parallel worlds —it's superlative, colorful, bloody adventure and the best of science fiction.

A MILE BEYOND THE MOON, by C. M. Kornbluth, Doubleday & Co., Garden City, N. Y. 1958. 239 pp. $2.95

This is the last collection thus far announced of the short stories of C. M. Kornbluth, whose sudden death last year cut off one of our greatest talents in science fiction. He had other unpublished stories, and I am sure we will see more of them, but these fifteen are representative of his extremely varied talent—not as memorable as his novels, but top stuff. It illustrates a varied ability, distributed among several pen names, rather than a constant high level.

Best of the book, in my opinion, are "The Little Black Bag," published here in 1950, and "Shark Ship," which appeared as "Reap the Dark Tide" in the one issue of *Vanguard.* The former is close to a classic for its sharply incised picture of a future in which education for the least able has down-graded the arts of medicine at the same time that an unobtrusive science has built them up. The latter is a nicely worked out picture of another future in which one sector of mankind has taken to the seas and built a warped society from their harvesting.

Another topper is the opening yarn in the collection, "Make Mine Mars," a galloping comedy of interplanetary politics and journalism. "The Last Man Left in the Bar" *(Infinity)* is a persuasive adventure in which cultists from the future pursue a misplaced fetish, "Virginia" *(Venture)* is the broadest of satires on the responsibilities of great wealth, and "The Slave" (*S. F. Adventures,* like "Make Mine Mars") is a straight problem-action story in which the hero must outwit and over-

come the aliens who have enslaved him.

These, with all their variety, are the best, and perhaps only "Little Black Bag" will turn up long in the anthologies. As for the others: "The Meddlers" *(S. F. Adventures)* is a slight, light farce of weather-making; "The Events Leading Down to the Tragedy" *(F&SF)* belongs up in the first rank for its perfect burlesque of local historians in full cry; "Everybody Knows Joe" *(Fantastic Universe)* can be considered a "straight" flash of a divided personality; and "Time Bum" is a formula tale of a swindler's game, relieved by the deft telling. "Passion Pills," also apparently in no magazine before the book was put together, is a light gag yarn of no importance.

One of the two oldest stories in the book is "Kazam Collects," an "S. D. Gottesman" story from a 1941 *Stirring Science Fiction* which is a good enough weirdy. The other is the well-known "The Words of Guru," another fantasy of an often-done type from *Avon Fantasy Reader* of the same year.

To complete the roster, "The Adventurer" *(Space S. F.)* is another competent satire of the degeneration of our democracy, and "Two Dooms," one of the author's last published stories (*Venture,* 1958), is a competent, if obvious, story about an atomic physicist who visits a future in which the A-bomb did not go off and Japan and Germany overran America.

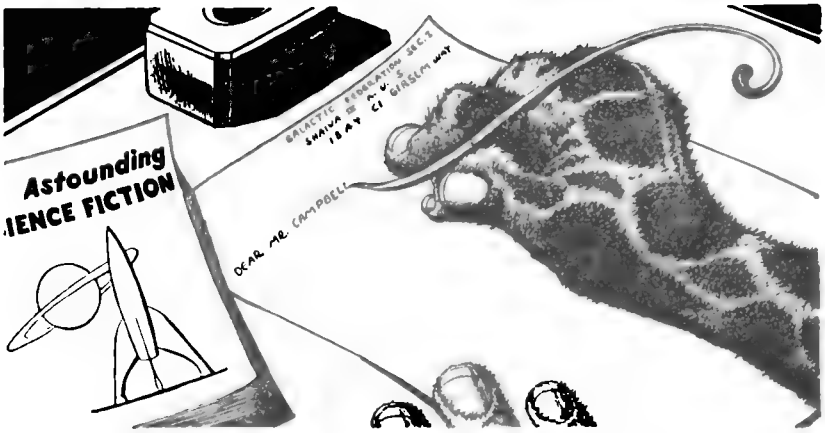
The Kornbluth we will remember needed room to move around and develop his slashing pictures of a society gone amok: "Not This August," or "The Space Merchants," or "The Syndic."

No Place on Earth, by Louis Charbonneau. Doubleday & Co., Garden City, N. Y. 1958. 184 pp. $2.95

This original novel is competent but routine and unexciting by the standards of a reader who has cut his teeth on SF themes. It is the one about a future society, totalitarian to the gills, developed to meet the scourge of overpopulation. The time is 2240 A.D., the enemy is the Population Control Corps—which sees no reason to terminate its own rule by permitting the solution of the problems which produced it—and the hero is a young propagandist, Petr Clayton, who has gradually been squeezed into revolt against the PCC, the Leader, and his whole society.

The story is told, for no very good reason, in a series of flashbacks as a hostile PCC officer tries to torture Petr into giving away the secrets of the Underground which finally helped him escape the penalties of having an unauthorized son. Details here and there are interesting, but no very real picture of the Malthusian oligarchy develops. The Leader is never real at all—in fact, maybe we're supposed to deduce that he doesn't exist. It's all been done better before.

BRASS



TACKS

Dear Mr. Campbell:

Concerning page 49 of September, 1958 issue—nice presentation of wrong question, misleadingly titled. I enjoy all of your unstated-implicit-assumption wrenchers, and I'd like to reply to this one to verify your suspicion that someone might be listening.

(1) The title is completely inappropriate: "A Problem in Abstract Justice" is a problem, but is utterly practical and has nothing to do with justice. It is a problem we automatically assumed when (the phylogenetic we) we decided to become mammals. When we chose to gamble the survival of our progeny upon care and protection, rather than upon astronomical numbers, we necessarily placed bounds upon their pre-mature environment. (And further bounded same as we developed co-operation, and equivalently, culture.)

(2) The problem is this: The adult is more experienced and wiser than the child, and a lot of the things an adult knows are wrong; the culture is more experienced and wiser than the individual, and a lot of the things the culture knows are wrong. The adult, or the culture, can teach the child, or the individual, much of what it knows. Where it cannot teach,

it can restrain child or individual, in that child's or individual's best interests. But it can neither teach nor force child, individual, or group to recognize when parent or culture is utterly wrong. Nor can the adult or civilization in question recognize its error when the child, the individual, or the sub-group point it out.

(3) Abstract justice, a problem in: Unfortunately, our answer to this question determines the answer to the question nature asked when it tried the placenta. If we don't find a workable answer, we've had it.—Willford MacFadden, 2310 East 113th Street, Seattle 55, Washington.

It's certainly not abstract anyway! See the current J. D. Problem.

Dear Mr. Campbell:

I have just finished constructing a symbolic Hieronymus machine. A friend of mine helped me with the work and we finished in about two hours. We used only the crudest of equipment, mostly junk which we found lying around the house. We commenced testing it even before the glue was dry and got some pretty definite results. I got results definite enough to convince me that there was definitely some force operating here; Bob is still unconvinced that he feels anything definite, and Charlotte, his wife, gets the strongest results of all. She, in fact, cannot keep her hand on the detector plate when the apparatus is properly tuned. None of us can notice any definite tacky sensation, and we all agree that the feeling is one of heat. That is, the detector plate feels definitely warm to me, Bob thinks he can feel heat but is not sure, and Charlotte says that she nearly burned her fingers. She describes the sensation as being similar to touching an electric blanket. She feels an electrical buzzing in addition to the heat.

Is it possible, Mr. Campbell, that you were deliberately misleading your readers in describing the sensation as being tacky? This seems reasonable to me as a measure to avoid pre-influencing persons who decided to construct the machine.—Paul Lipton, 107 Shady Lane, Antioch, California.

No misdirections involved. The response varies for different individuals, as I stated in the original article on the device.

Dear Sir:

Having been a reader of Astounding for several years, and thoroughly enjoyed same, I have followed your editorials with considerable interest, particularly the ones dealing with PSI and ESP. The latest "We must study PSI" was very good, and also very true. Unfortunately, even though I believe that eventually the science of the mind will become our most important step in the evolution of mankind, very few people today are interested in this and allied subjects.

My reason for writing on the subject is two-fold. First to acquaint you with our group, The Detroit Hypnology Society, which is making a study

of some of the same things you are interested in, and to offer our services in anyway we can be of help to you or others seeking knowledge in this field. Not that we are experts in any way, just laymen, but somewhere there must be co-ordination of what progress is made in the field, and your new magazine for that purpose should be of great help in keeping us posted on what others are doing.

For a little background on our group; The Detroit Hypnology Society, is a non-profit organization of laymen and doctors, who formed the group seven years ago. Today, it consists of roughly two hundred members of which sixty are Hypnotists. We have a general meeting once each month, open to the public, and two or three others purely for the members. The public meetings are demonstrations and educational films, the demonstrations being various phases of hypnosis, the film on many subjects, but generally of a psychological nature. The open meetings are usually attended by from seventy-five to one hundred people, besides our members. Many of the hypnotists are working with doctors and some hospitals, as Hypno-Therapists. Our open meetings are primarily educational, showing what can be done with hypnosis, and we seem to be making some headway here.

Our private meetings are mostly experimental, and deal mostly with ESP, et cetera. Here we have had some unbelievable results. Just recently, I had a young lady under hypnosis testing for Telepathy. First, I tested her ability to describe pictures in a *Scientific American* magazine which was on my desk, while no one was looking at it. This she did only fairly well, but when I looked at the pictures and asked her to describe some more of them, she could do so in detail, not missing a thing. Another time, I had a young man under hypnosis in one room, read a magazine in another room in which no one was present, and none knew what was in the magazine. Here I had not just Telepathy, but mind pro-jection. We are currently testing several of our members on the ESP cards, and some are proving to have much better than "Chance" ratings. One series of tests went far beyond our original intentions, and by working with the Police Department, broke up a narcotics ring and solved a murder.

While Hypnosis is not a new subject by any means, it seems to bring out the other forms of ESP much better then tests made without it. I am enclosing the last three issues of our Society bulletin which I edit, which will give you an idea of some of the things we are doing, and if you wish, will mail you one each month. I'm also enclosing one of the little sheets we give out at the meetings, this one being on the subject of the lay Hypno-Therapist, by our Vice President, Dick Kent.—C. Edward Woods, 11917 Roxbury, Detroit 24, Michigan.

This group sounds like the Detroit Chapter of what the I.E.S. groups should be!

(*Continued from page* 7)

The laws of material properties do not apply to field forces.

There is, in other words, a type of variability-of-the-laws-of-nature involved; the various levels of physical reactions have different laws, but laws that are related in some not-yet-definable way.

Recent photographs of colliding galaxies, taken with the 200″ telescope at Palomar Mountain, show strong indications that galaxies interact like *viscous* systems . . . and what is viscous about something as vacuous as a galaxy?!

It is my strong impression that *there is no such thing as an invariant law of nature!*

At this point, the professionally trained scientist will start balking; it sounds too horribly akin to the witless objections of the antiscientist who says, superciliously, "Well, after all, how do you know your 'laws' are any good? You're always changing them, aren't you? You all said Newton was right, and now you all say Einstein's right. How do you know you're so right when you say anything?"

The bird who pulls that one is generally one of these individuals who wants to be an artist, but hates the work it takes to be a draftsman, so does slop-happy "impressionistic" or "surrealistic" botches. (Be it noted that Dali was *first* a magnificent draftsman, and *then* developed surrealism.) Or one who wants to be accepted as a musician . . . without having to learn all that boring stuff about precision use of instruments, or the rigid discipline of the theory of melody.

He is, in other words, the mentally undisciplined type, the individual who learns all the wrong aspects of the Liberal Arts idea that human thought is important and valuable—and decides that human thought should be the *only* value. Particularly *his* thought. He wants to have the laws of nature not variable, but whimsical—responding to his whim.

The surface gravity of a planet is variable. (It varies from planet to planet, in large degree, and from place to place on a given planet, in very small degree.)

The surface gravity of a planet is invariant. (It varies according to known, and definable law—not by whimsy.)

The antiscientist self-defined "humanist" we might call a Natural Anarchist; he wants a universe in which no law of nature is binding if he doesn't like it. In which there are no laws—merely opinions, and opinions he can change at will.

(The curious thing is, you'll find that this type of misthinker is remarkably inept at changing anybody else's opinion. If the world *were* run by opinions, he'd be in foul shape; he can change neither his own opinions, nor anyone else's!)

What I am proposing in the statement that there are no true invariant laws of nature is something quite different. Simply, that there is a heirarchy of laws such that a "law of

nature" at any one, named level, is subject to variation by application of a higher-level law.

Mass was considered an absolute and invariant; Einstein showed that there were higher-level laws that made mass a variable.

But . . . when a law of one level is made variable by manipulation at a higher level, *that higher-level manipulation is, itself, constrained by law.* It follows its own, higher-level, quasi-invariance.

If you change a postulate, all the dependent derivations change.

If you transmute a nucleus, all the dependent electron shells change; that causes a change in the chemical molecular reactions entailed, which causes a change in the crystalline structure, which alters the mechanical properties, which . . .

When they first started working with uranium in nuclear reactors, they ran into an unexpected difficulty. If as few as 1/1000th of the atoms present are fissioned, the uranium metal mass changes its physical dimensions by more than ten per cent! If you've carefully machined the uranium slugs to fit in a certain tube in a reactor with a good, smooth fit . . . you will not be happy to discover your now-highly-radioactive slug can't be budged from its swollen-in-place anchorage.

The investigation of psi that I've done so far indicates that there are things going on that make the laws of science look like sheer nonsense. Eusapia Palladino could throw a hooker into the law of gravity; she could levitate. (Suppose she'd been around when Galileo was trying to study the behavior of free-falling bodies! She could make 'em fall up, down, sidewise, or in corkscrew curves, with nary a clue as to how she did it . . . or that someone was doing it!) D. D. Home, according to Sir William Crooks' careful investigation, could also levitate. There was a youngster out on Long Island a year or so ago levitating objects around the house. He was busily making all three of Newton's Laws of Motion, and the law of gravity, appear to be highly variable—valid for ordinary people, but mere transient whims, when he was around!

In view of this, there are several possible assumptions:

1. The Laws of Nature work for most people—but there are some who have a Special Dispensation, and can do as they darned well please.
2. These derelictions of duty on the part of Nature never occurred. Everyone who studied and reported them was a liar, a fraud, a fool, a charlatan, a delusional case, or himself did not really exist, but was only a rumor.
3. They represent the operation of higher-order, yet-undiscovered fundamental Laws, which will, when elucidated, give us clear understanding of antigravity, and anti-inertia.

Currently, science is decidedly anti-human in its attitudes. Basically, it

holds that no human being can do something a machine can't do, and machines can do things human beings can't, so that if a human claims to do something a machine can't—he didn't.

Evolution has, however, been at the business somewhat longer than science—by a factor of not less than one million!—and there seem to be some things science hasn't quite caught up with yet. The effort to achieve "sophisticated" miniaturized telemetering equipment in satellites, for example. "Go to the ant, thou fumbler!" They still haven't even started in the direction of evolutionary achievement; their smallest individual transistors are larger than an entire ant of some of the largest species. And the ant has a complete set of acceleration, light, temperature, and chemical-environment sensing devices, plus a high-order computer, built in. And a set of efficient servo units to react to the information with!

It's just possible that a human being does have mechanisms that are beyond anything science has come across as yet.

Most important; if we would just *try* for a while working on Hypothesis #3 above . . . we might not need such "sophisticated" and remarkably unreliable gadgets to get a satellite into space. (Personally, I'm beginning to react to the term "sophisticated" the way the German people reacted to the term "ersatz" as they slowly lost the war. "A substitute for something that should be there but we aint' got any. And anyway this is really better.")

All the evidence of the history of science indicates that there is no such thing as a true invariant law of nature. It just looks that way till we learn better.

I reject the notion that psi is anti-scientific, or disproves science, or anything of the sort. I'm willing to bet that gaining what you want by the use of psi techniques—mind-over-matter—is possible . . . but contrary to the Natural Anarchist's dearest hopes and deepest convictions, it'll call for a darned sight more—not less!—hard work and deep self-discipline and learning.

I'll bet, too, that when psi is reduced to practice, the very ones who have been most loud in its praises will be the most frustratedly angry—the something-for-nothing specialists who want it done by just wishing.

Sure it can be done just by wishing—just as you can get from one place to another by a mere wave of your hands. If, that is, you can walk on your hands, and can keep waving 'em long enough while walking on 'em. And you can get things by wishing—if you have the discipline, determination, and specific knowledge of the Laws of Wishing necessary.

One thing's sure; the Natural Anarchist type is never going to do the hard work necessary to dig out the methods of working hard at wishing!

THE EDITOR

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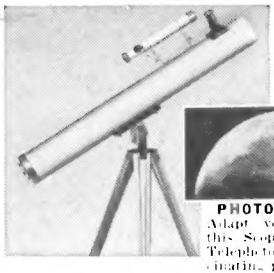

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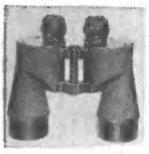

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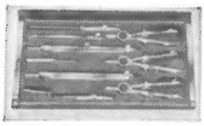

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